ORDER NO.CHM0305012C2

Service Manual

DVD Player

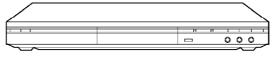
DVD-S75EG / DVD-S75EB / DVD-S75E

DL2S Mechanism Series

Colour

(S).....Silver Type

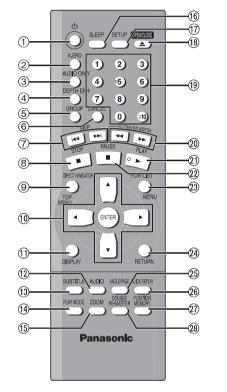
K).....Black Type (S75EG/E Only)

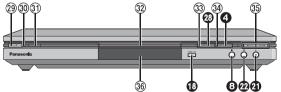


IMPORTANT: See page 4 for information regarding the use of 2 types of module PCBs. This manual applies only to PCB Type B. Confirm PCB type before any troubleshooting

SPECIFICATIONS

Specifications





Controls such as a function the same as those on the remote control.

- ① Standby/on button (也)
- ② Advanced Surround button (A,SRD)
- 3 Audio only button (AUDIO ONLY)
- ④ Depth Enhancer button (DEPTH ENH)
- (5) Group button (GROUP)
- 6 Cancel button (CANCEL)
- ¬ Skip buttons (I◄◄, ►►I SKIP)
- **® Stop button (■ STOP)**
- ⑤ Top menu, Direct navigator button (TOP MENU, DIRECT NAVIGATOR)
- (i) Cursor buttons (▲, ▼, ◄, ►), Enter button (ENTER)
- (i) Display button (DISPLAY)
- ② Audio button (AUDIO)
- (3) Subtitle button (SUBTITLE)
- (4) Play mode button (PLAY MODE)
- (5) Zoom button (ZOOM)
- ® Sleep button (SLEEP)
- Setup button (SETUP)
- Open/Close button (▲ OPEN/CLOSE)
- (9) Numbered buttons (1–9, 0, ≥10)
- ② Slow/Search buttons (◄◄, ▶▶ SLOW/SEARCH)
- ② Play button (► PLAY)
- 22 Pause button (II PAUSE)
- Menu, Play list button (MENU, PLAY LIST)
- ② Return button (RETURN)
- 25 Angle/Page button (ANGLE/PAGE)
- ② Quick replay button (QUICK REPLAY)
- ② Position memory button (POSITION MEMORY)
- ② Double Re-master button (DOUBLE RE-MASTER)
- ② Standby/on switch (₺/I)

Press to switch the unit from on to standby mode or vice versa. In standby mode, the unit is still consuming a small amount of power.

③ Standby indicator (₺)

When the unit is connected to the AC mains supply, this indicator lights up in standby mode and goes out when the unit is turned on.

- 31 Remote control signal sensor
- 32 Disc tray
- 3 Double Re-master indicator
- 3 Depth Enhancer indicator
- 35 Skip/Slow/Search buttons (I◄◄/◄◄, ►►/►►I)
- 36 Display

AC220-240 V, 50 Hz Power supply: Power consumption: 17 W 430 (W)×303 (D)×52 (H) mm Dimensions: (excluding protrusions) Mass: 2.7 kg Signal system: PAL625/50, PAL525/60, NTSC Operating temperature range: +5 to +35°C Operating humidity range: 5 to 90 % RH (no condensation) Region number: Region No.2 Discs played [8 cm or 12 cm]: (1) DVD-RAM (DVD-VR compatible) (2) DVD-Audio (3) DVD-Video (4) DVD-R (DVD-Video compatible) (5) CD-Audio (CD-DA) (6) Video CD (7) SVCD (Conforming to IEC62107) (8) CD-R/CD-RW (CD-DA, Video CD, Supper Video-CD formatted discs) (9) MP3/WMA Maximum number of tracks and groups recognizable: 999 tracks and 99 groups Compatible compression rate: between 32 kbps and 320 MP3: kbps WMA: between 48 kbps and 192 kbps (10) JPEG Exif Ver 2.1 JPEG Baseline files Maximum number of pictures and groups recognizable: 3000 pictures and 300 groups between 320×240 and 6144× Picture resolution: 4096 pixels (Sub sampling is 4:2:2 or 4:2: (11) HighMAT Level 2 (Audio and Image)

Video output:

Output level: 1 Vp-p (75 Ω)

Output terminal: Pin jack (1 system)/AV

S video output:

Y output level: 1 Vp-p (75 Ω)
C output level: 0.300 Vp-p (75 Ω)
Output terminal: S terminal (1 system)/AV

Component video output (576I):

Y output level: 1 Vp-p (75 Ω) PB output lebel: 0.7 Vp-p (75 Ω)

PR output level 0.7 Vp-p (75 Ω) **Output terminal:** Pin jack (1 system, Y:green, PB: blue, PR :red) **RGB** video output: R output level: 0.7 Vp-p (75 Ω) G output level: 0.7 Vp-p (75 Ω) B output level: 0.7 Vp-p (75 Ω) Output terminal: A۷ Audio output: Output level: 2 Vrms (1 kHz, 0 dB) Pin jack/AV Output terminal: Number of terminals: 2 channel: 1 system 5.1-channel discrete output 1 system (5.1 channel): Audio performance: (1) Frequency response: 4 Hz-22 kHz (48 kHz DVD (linear audio): sampling) 4 Hz-44 kHz (96 kHz sampling) 4 Hz-88 kHz DVD-Audio: (192 kHz sampling) 4 Hz-20 kHz CD audio: (2) S/N ratio: 115 dB CD audio: (3) Dynamic range: 102 dB DVD (linear audio): 98 dB CD audio: (4) Total harmonic distortion: 0.0025 % CD audio: Digital audio output:

Optical digital output: Optical terminal

Coaxial digital output: Pin jack

Pickup

Wave length: 658 nm/790 nm
Laser power: CLASS 2/CLASS 1

Power consumption in standby mode:

1.9 W

Note:

Specifications are subject to change without notice.

Mass and dimensions are approximate.

Solder:

This model uses lead free solder (PbF).

MPEG Layer-3 audio decoding technology licensed from Fraunhofer IIS and Thomson multimedia.

Windows Media, and the Windows logo are trademarks, or registered trademarks of Microsoft Corporation in the United States and/ or other countries.

WMA is a compression format developed by Microsoft Corporation. It achieves the same sound quality as MP3 with a file size that is smaller than that of MP3.





HighMAT and the HighMAT logo are either trademarks or registered trademarks of Microsoft Corporation in the United States and/ or other countries.

Built-in decoders

You can play discs with these symbols.



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⚠ WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

Panasonic

1. Service Information Regarding MODULE P.C.B. of DVD-S75EG/EB/E

1.1. Overview

DVD model DVD-S75EG/EB/E will be manufactured using 2 distinctly different MODULE P.C.B.. These 2 versions of MODULE P.C.B. will be referred to as P.C.B. types "B" and "C".

[This main Service Manual is applicable ONLY to P.C.B. "TYPE B".]

P.C.B. type "C" is covered by other Supplement Service Manual.

First production units will all have P.C.B. type "B".

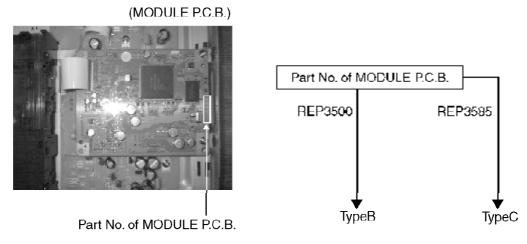
Note:

Although different IC part number's are used, the features, function and performance are identical.

1.2. How to Distinguish the Types of MODULE P.C.B.

Types "B" and "C" of MODULE P.C.B. can be distinguished depend on part number of MODULE P.C.B. as shown below.

Figure



1.3. Difference Comparison Chart (only main parts)

[Differences and Comparison Chart]

Description / Ref. #	Type A	Type B	Type C
MODULE P.C.B.	Does not exist	REP3500E	REP3585C-C
AV decorder (IC3001)		ROM2 (MN2DS0002AP1)	ROM2 (MN2DS0002AP1)
SDRAM (IC3051)		64Mbit (C3ABPG000102)	64Mbit (Part # not yet decided)
SDRAM (IC3061)		64Mbit (C3ABPG000102)	
LATCH (IC6311)		C0JBAH000074	
LATCH (IC6312)		C0JBAH000074	
FLASH ROM (IC6301)		RFKFSS70R160	Part # not yet decided.

CAUTION: ALWAYS CONFIRM THE P.C.B. PART NUMBER AND TYPE AND REFER TO THE APPROPRIATE SERVICE MANUAL BEFORE TROUBLESHOOTING OR REPLACING ANY PARTS.

2. SAFETY PRECAUTIONS

2.1. GENERAL GUIDELINES

- 1. When servicing, observe the original lead dress. If a short circuit is found, replace all parts which have been overheated or damaged by the short circuit.
- 2. After servicing, see to it that all the protective devices such as insulation barriers, insulation papers shields are properly installed.
- 3. After servicing, make the following leakage current checks to prevent the customer from being exposed to shock hazards.

2.1.1. LEAKAGE CURRENT COLD CHECK

- 1. Unplug the AC cord and connect a jumper between the two prongs on the plug.
- 2. Measure the resistance value, with an ohmmeter, between the jumpered AC plug and each exposed metallic cabinet part on the equipment such as screwheads, connectors, control shafts, etc. When the exposed metallic part has a return path to thechassis, the reading should be between 1M ♀ and 5.2M ♀. / When the exposed metal does not have a return path to the chassis, the reading must be ∞.

Figure 1

Hot-Check Circuit
AC VOLTMETER

0.15μF

APPLIANCES
EXPOSED
WATER PIPE
METAL PARTS 1500Ω 10W

(COLD
WATER PIPE
(EARTH GROUND)

2.1.2. LEAKAGE CURRENT HOT CHECK (See Figure 1.)

- 1. Plug the AC cord directly into the AC outlet. Do not use an isolation transformer for this check.
- 3. Use an AC voltmeter, with 1000 ohms/volt or more sensitivity, to measure the potential across the resistor.
- 4. Check each exposed metallic part, and measure the voltage at each point.
- 5. Reverse the AC plug in the AC outlet and repeat each of the above measurements.
- 6. The potential at any point should not exceed 0.75 volts RMS. A leakage current tester (Simpson Model 229 or equivalent) may be used to make the hot checks, leakage current mu3st not exceed 1/2 milliamp. In case a measurement is outside of the limits specified, there is a possibility of a shock hazard, and the equipment should be repaired and rechecked before it is returned

to the customer.

3. PREVENTION OF ELECTRO STATIC DISCHARGE (ESD) TO ELECTROSTATICALLY SENSITIVE (ES) DEVICES

Some semiconductor (solid state) devices can be damaged easily by static electricity. Such components commonly are called Electrostatically Sensitive (ES) Devices. Examples of typical ES devices are integrated circuits and some field-effect transistors and semiconductor "chip" components. The following techniques should be used to help reduce the incidence of component damage caused by electro static discharge (ESD).

- 1. Immediately before handling any semiconductor component or semiconductor-equipped assembly, drain off any ESD on your body by touching a known earth ground. Alternatively, obtain and wear a commercially available dischargingESD wrist strap, which should be removed for potential shock reasons prior to applying power to the unit under test.
- 2. After removing an electrical assembly equipped with ES devices, place the assembly on a conductive surface such as alminum foil, to prevent electrostatic charge buildup or exposure of the assembly.
- 3. Use only a grounded-tip soldering iron to solder or unsolder ES devices.
- 4. Use only an anti-static solder removal device. Some solder removal devices not classified as "anti-static (ESD protected)" can generate electrical charge sufficient to damage ES devices.
- 5. Do not use freon-propelled chemicals. These can generate electrical charges sufficient to damage ES devices.
- 6. Do not remove a replacement ES device from its protective package until immediately before you are ready to install it. (Most replacement ES devices are packaged with leads electrically shorted together by conductive foam, alminum foil or comparableconductive material).
- 7. Immediately before removing the protective material from the leads of a replacement ES device, touch the protective material to the chassis or circuit assembly into which the device will be

installed.

Caution

Be sure no power is applied to the chassis or circuit, and observe all other safety precautions.

8. Minimize bodily motions when handling unpackaged replacement ES devices. (Otherwise hamless motion such as the brushing together of your clothes fabric or the lifting of your foot from a carpeted floor can generate static electricity (ESD) sufficient todamage an ES device).

4. Precaution of Laser Diode

CAUTION:

This product utilizes a laser diode with the unit turned "on", invisible laser radiation is emitted from the pickup lens. Wave length: 658 nm/790 nm

Maximum output radiation power from pickup: 100 μ W/VDE

Laser radiation from the pickup lens is safety level, but be sure the followings:

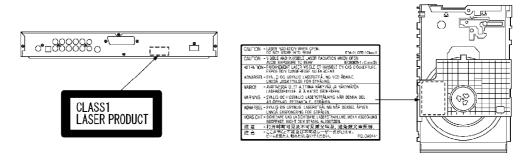
- Do not disassemble the optical pickup unit, since radiation from exposed laser diode is dangerous.
- Do not adjust the variable resistor on the pickup unit. It was already adjusted.
- 3. Do not look at the focus lens using optical instruments.
- 4. Recommend not to look at pickup lens for a long time.

ACHTUNG:

Dieses Produkt enthält eine Laserdiode. Im eingeschalteten Zustand wird unsichtbare Leserstrahlung von der Laserinheit adgestrahit. Wellenlänge: 658 nm/790 nm Maximale Strahlungsleistung der Lasereinheit: 100 µ

Die Strahlungan der Lasereinheit ungefährlich, wenn folgende Punkte beachtet werden:

- Die Lasereinheit nicht zerlegen, da die Strahlung an der freigelegten Laserdiode gefährlich ist.
- Den werkseitig justierten Einstellregler der Lasereinhit nicht verstellen.
- Nicht mit optischen Instrumenten in die Fokussierlines blicken.
- 4. Nicht über längere Zeit in die Fokussierlines blicken.



CAUTION!

THIS PRODUCT UTILIZES A LASER.

USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.

5. About lead free solder (PbF)

Distinction of PbF PCB: PCBs (manufactured) using lead free solder will have a PbF stamp on the PCB.

Caution:

Pb free solder has a higher melting point than standard solder;
 Typically thmelting point is 50 - 70°F (30 - 40°C) higher. Please use a high temperature soldering iron. In case of the soldering iron with temperature control, please set it to 700 ± 20°F (370 ± 10°C).

- Pb free solder will tend to splash when heated too high (about 1100°F/ 600°C).

When soldering or unsoldering, please completely remove all of the solder on the pins or solder area, and be sure to heat the soldering points with the Pb free solder until it melts enough.

6. General Description

6.1. Operating instructions

7. PREVENTION OF STATIC ELECTRICITY DISCHARGE

The laser diode in the traverse unit (optical pickup) may brake down due to static electricity of clothes or human body. Use due caution to electrostatic breakdown when servicing and handling the laser diode.

7.1. Grounding for electrostatic breakdown prevention

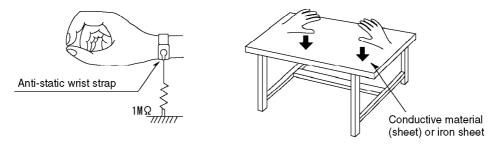
Some devices such as the DVD player use the optical pickup (laser diode) and the optical pickup will be damaged by static electricity in the working environment. Proceed servicing works under the working environment where grounding works is completed.

7.1.1. Worktable grounding

1. Put a conductive material (sheet) or iron sheet on the area where the optical pickup is placed, and ground the sheet.

7.1.2. Human body grounding

1. Use the anti-static wrist strap to discharge the static electricity form your body.



7.1.3. Handling of optical pickup

1. To keep the good quality of the optical pickup maintenance parts during transportation and before installation, the both ends of the laser diode are short-circuited. After replacing the parts with new ones, remove the short circuit according to the correct procedure. (See this Technical Guide.)

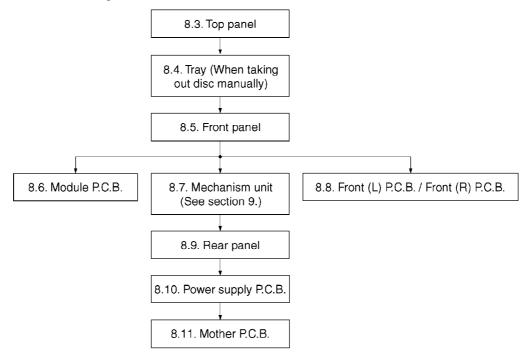
2. Do not use a tester to check the laser diode for the optical pickup. Failure to do so will damage the laser diode due to the power supply in the tester.

7.2. Handling Precautions for Traverse Unit (Optical Pickup)

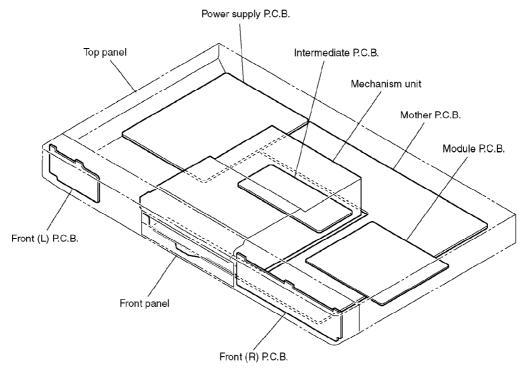
- 1. Do not give a considerable shock to the traverse unit (optical pickup) as it has an extremely high-precise structure.
- 2. When replacing the optical pickup, install the flexible cable and cut its short land with a nipper. See the optical pickup replacement procedure in this Technical Guide. Before replacing the traverse unit, remove the short pin for preventingstatic electricity and install a new unit. Connect the connector as short times as possible.
- 3. The flexible cable may be cut off if an excessive force is applied to it. Use caution when handling the cable.
- 4. The half-fixed resistor for laser power adjustment cannot be adjusted. Do not turn the resistor.

8. DISASSEMBLING THE CASING AND CHECKING P.C.B.S

8.1. Disassembly Procedure

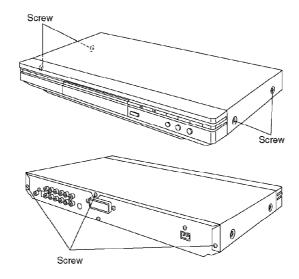


8.2. Casing Parts and P.C.B. Positions



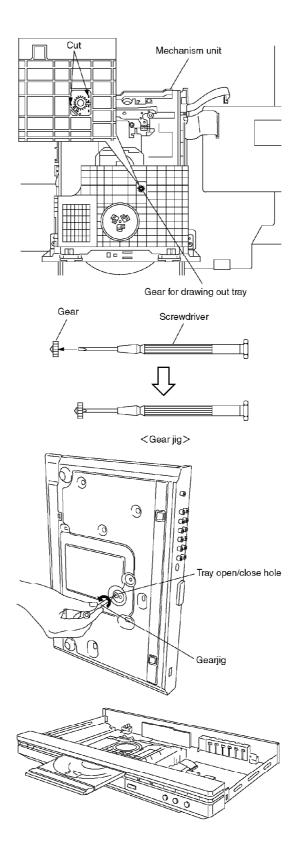
8.3. Top Panel

1. Unscrew the screws.



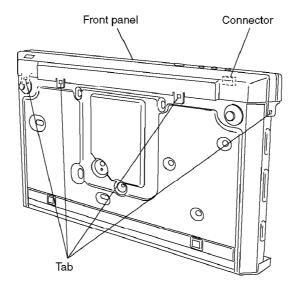
8.4. Tray (When taking out disc manually)

- 1. Separates the gear for drawing out tray from the mechanism unit. It inserts a screwdriver in the gear. (The gear jig)
- 2. Insert the gear jig into the tray open/ close hole.
- 3. Turn the gear jig counterclockwise to open the tray.



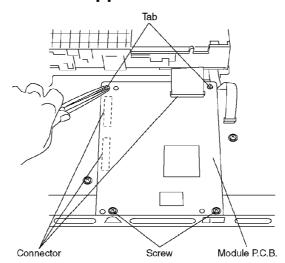
8.5. Front Panel

- 1. Release the tabs.
- 2. Remove the connector.



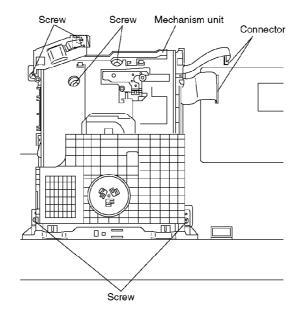
8.6. Module P.C.B.

- 1. Unscrew the screws.
- 2. Remove the connectors.
- 3. Press each tab with the nipper to module PCB vertically.



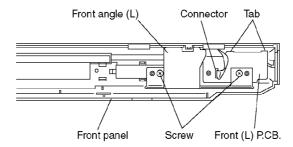
8.7. Mechanism Unit

- 1. Unscrew the screws.
- 2. Remove the connectors.
- 3. Pull out the mechanism unit vertically.

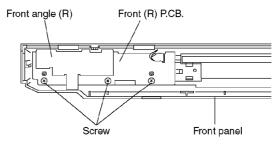


8.8. Front (L) P.C.B. and Front (R) P.C.B.

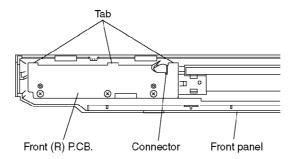
- 1. Unscrew the screws.
- 2. Remove the Front angle (L).
- 3. Remove the connector.
- 4. Release the tabs.



- 5. Unscrew the screws.
- 6. Remove the Front angle (R).

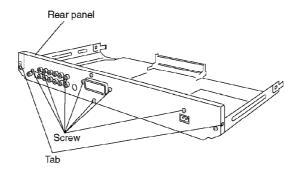


- 7. Remove the connector.
- 8. Release the tabs.



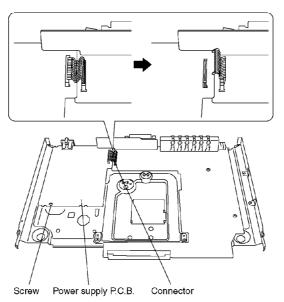
8.9. Rear panel

- 1. Unscrew the screws
- 2. Release the tabs.



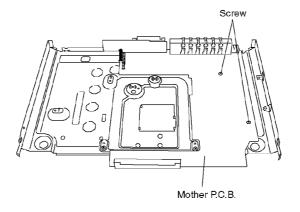
8.10. Power supply P.C.B.

- 1. Unscrew the screw.
- 2. Remove the connector.



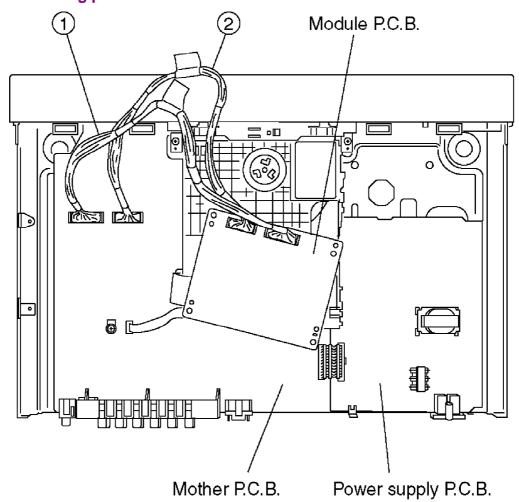
8.11. Mother P.C.B.

1. Unscrew the screws.

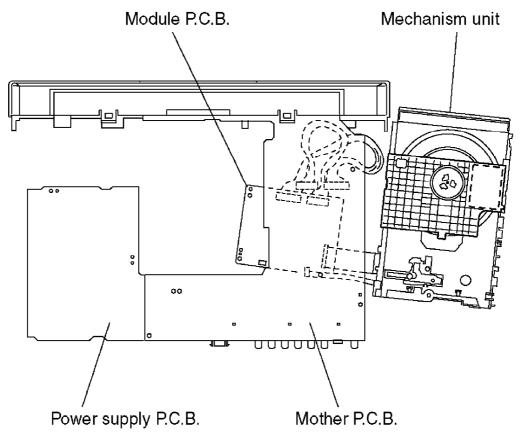


8.12. Service Position

8.12.1. Servicing position of the Module P.C.B.



8.12.2. Servicing position of the Mother P.C.B. & Power supply P.C.B.

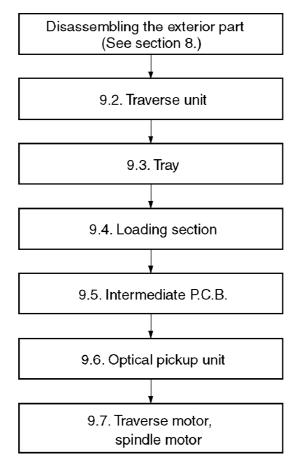


8.12.3. List of the Extension Cables

1	JGS0098	26pins	PS4201(Module P.C.B.) — PP4301(Mother P.C.B.)	
2	JGS0116	22pins	PS3201(Module P.C.B.) — PP3201(Mother P.C.B.)	

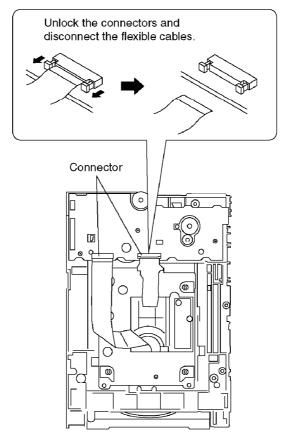
9. ASSEMBLING AND DISASSEMBLING THE MECHANISM UNIT

9.1. Disassembly Procedure

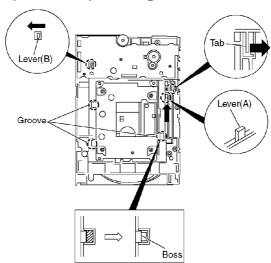


9.2. Traverse Unit

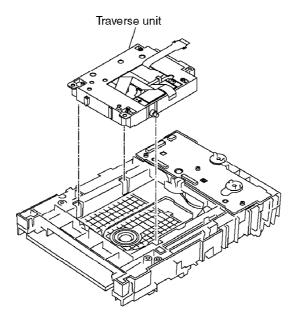
1. Remove the connector.



- 2. Slide the lever (A) in the arrow direction (to the opposite side) till it stops.
- 3. Slide the lever (A) further by bending the tab at the right side of the lever A in the right direction. (The right groove opens and the boss becomes seen.)
- 4. Open the lever (B) to left. (The 2 grooves at the left side open.)

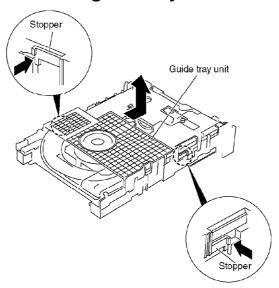


5. Remove the traverse unit

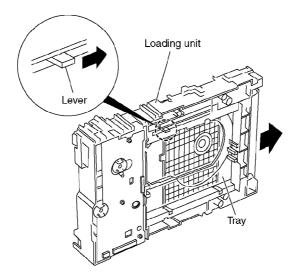


9.3. Tray

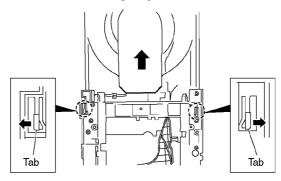
1. Slide the guide tray unit while pressing the stopper in the arrow direction, and remove the guide tray unit.



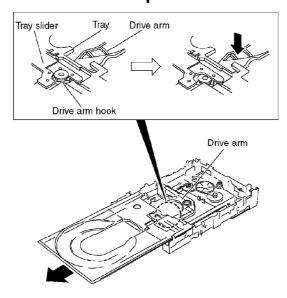
- 2. Raise the loading unit.
- 3. Slide the lever in the arrow direction till it stops and pull the tray out.



4. Spread the tabs at the both sides and pull the tray out. (The tray slides a little forward and stops.)



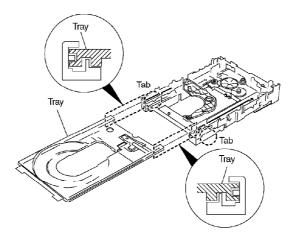
5. Remove the drive arm concave phase from the tray slider and tray.



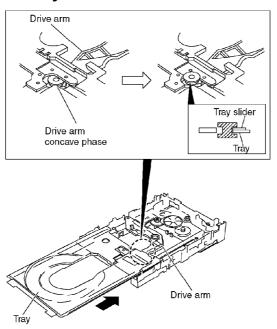
<Assembling the tray unit>

1. Insert a part of the tray into the unit sliding over the groove on the mechanical chassis unit.

2. Insert the tray to the point before the tab of the mechanical chassis unit.

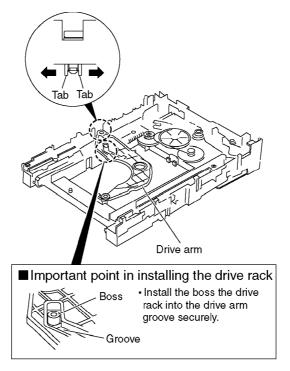


- 3. Hook the drive arm concave phase over the tray and the tray slider.
- 4. Press in the tray.
- 5. Make sure that the tray and the drive arm move smoothly.

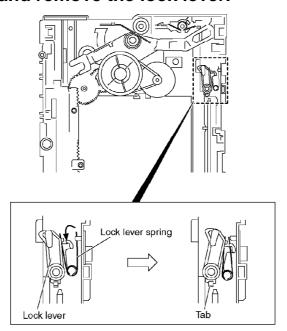


9.4. Loading section

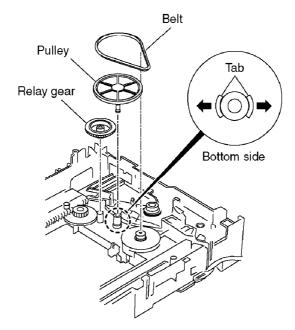
1. Spread the tabs at the both sides and push out the drive arm shaft.



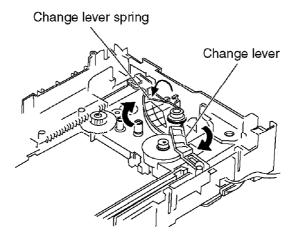
- 2. Hook the lock lever spring on the lock lever projection part temporarily.
- 3. Unlock the tab and remove the lock lever.



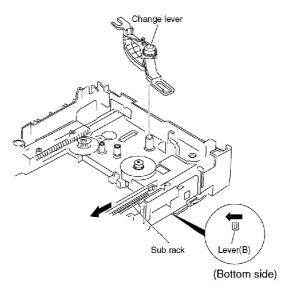
- 4. Remove the belt.
- 5. Unlock the tab and remove the pulley.
- 6. Remove the relay gear.



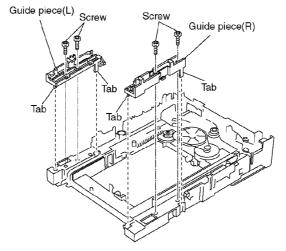
- 7. Turn the change lever in the arrow direction till it stops.
- 8. Hook the change lever spring on the change lever project part temporarily.



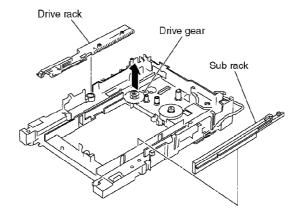
9. Pull the lever (B) in the bottom side to your side and remove the change lever.



- 10. Unscrew the screws.
- 11. Unlock the tabs and remove the guide piece (L).
- 12. Unlock the tabs and remove the guide piece (R).

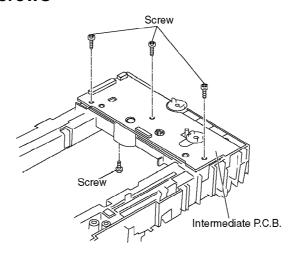


13. Remove the drive rack, the sub rack and the drive gear.



9.5. Intermediate P.C.B.

1. Unscrew the screws



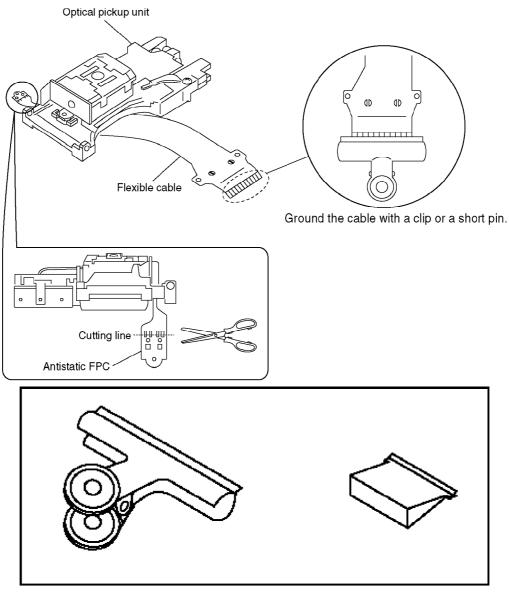
9.6. Optical Pickup Unit

9.6.1. Cautions to Be Taken in Handling the Optical Pickup Unit

The laser diode in the optical pickup unit may be damaged due to electrostatic discharge generating from clothes or human body. Use due caution to electrostatic discharge damage when servicing the laser diode.

- 1. Do not give a considerable shock to the optical pickup unit as it has an extremely high-precise structure.
- 2. To prevent the laser diode from the electrostatic discharge damage, the flexible cable of the optical pickup unit removed from the PCB should be short-circuited with a short pin or a clip.
- 3. The flexible cable may be cut off if an excessive force is applied to it. Use caution when handling the flexible cable.
- 4. The antistatic FPC is connected to the new optical pickup unit.

 After replacing the optical pickup unit and connecting the flexible cable, cut off the antistatic FPC.



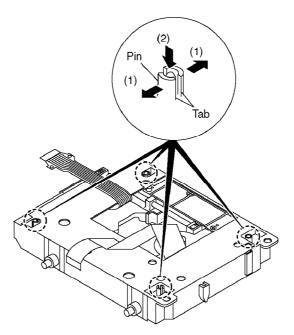
Clip or Short pin

9.6.2. Cautions to Be Taken When Replacing the Optical Pickup

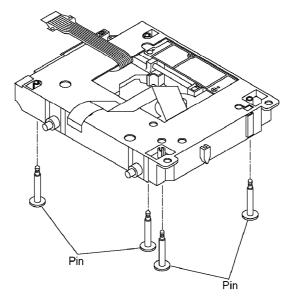
The flexible cable of the optical pickup unit which was supplied as a component is equipped with a short clip to prevent the laser diode from being damaged due to electrostatic discharge. Remove the short clip before connecting the flexible cableand make sure that the short land is open. (If the flexible cable is short-circuited, remove the solder.)

9.6.3. Procedure for Disassembling the Optical Pickup Unit

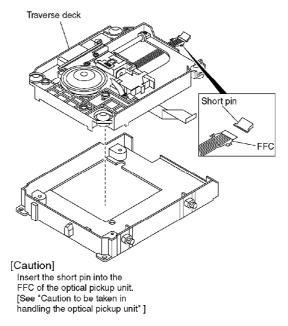
1. Spread the tabs to push in the pin.



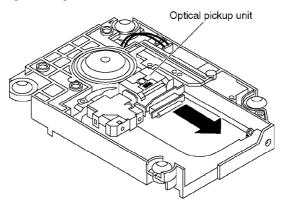
2. Remove the pins.



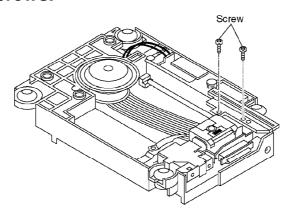
3. Remove the traverse deck.



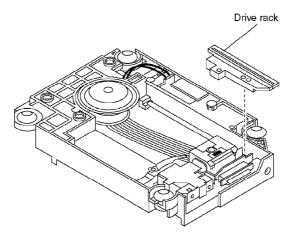
4. Move the optical pickup unit in the arrow direction till it stops.



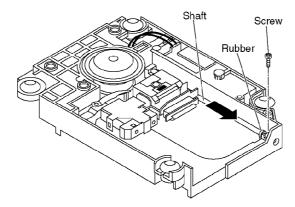
5. Unscrew the screws.



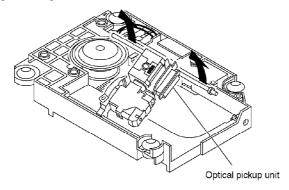
6. Remove the drive rack.



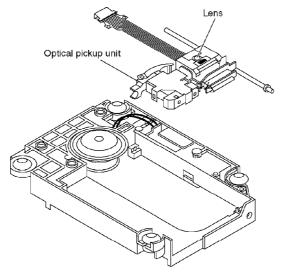
- 7. Unscrew the screw
- 8. Slide the shaft in the arrow direction.



9. Lift the optical pickup unit with the shaft.



10. Remove the optical pickup unit.

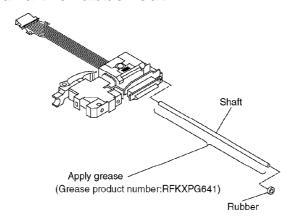


[Caution]

- 1. Do not give a considerable shock to the optical pickup unit as it has an extremely high-precise structure.

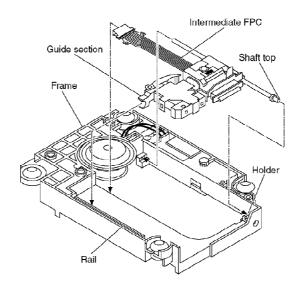
 2. Do not touch the lens in the optical pickup unit.

11. Pull the shaft and the rubber out.



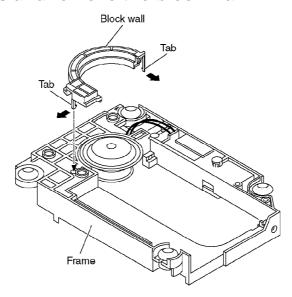
<Assembling the optical pickup unit>

- 1. Pass the intermediate FPC through the frame hole.
- 2. Align the guide section of the optical pickup unit with the rail.
- 3. Install the shaft top to the holder.

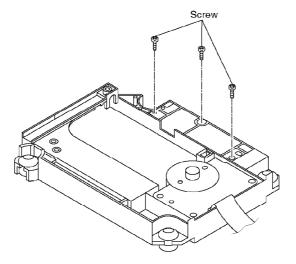


9.7. Traverse Motor and Spindle Motor

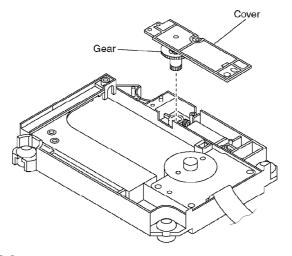
1. Unlock the tabs and remove the block wall.



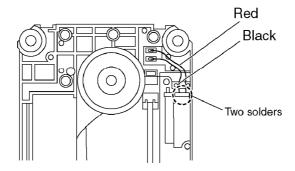
2. Unscrew the screws.



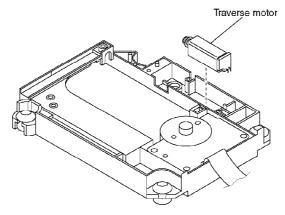
3. Remove the cover while lifting the inner gear.



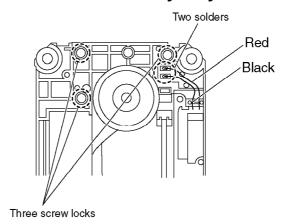
4. Remove the solders.



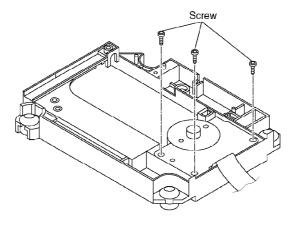
5. Remove the traverse motor.

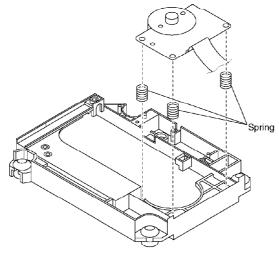


- 6. Remove the solders.
- 7. Remove the screw lock as carefully as you can.



- 8. Unscrew the screws with torx screw driver (T6).
- 9. Remove the spindle motor.





[Caution]
The three springs are removed at the same time when the spindle motor is removed. Use caution not to lose them.

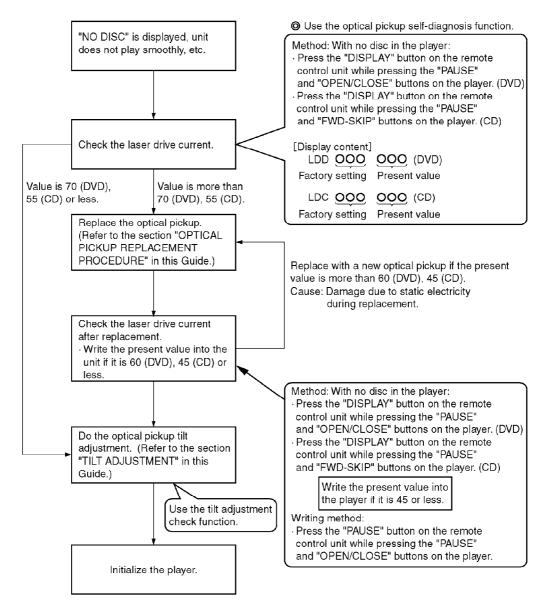
10. Self-Diagnosis Function and Service Modes

10.1. Optical Pickup Breakdown Diagnosis

The optical pickup self-diagnosis function and tilt adjustment check function have been included in this unit. When repairing, use the following procedure for effective Self-diagnosis and tilt adjustment.Be sure to use the self-diagnosis function before replacing the optical pickup when "NO DISC" is displayed. As a guideline, you should replace the optical pickup when the value of the laser drive current is more than 55.

Note:

Press the power button to turn on the power, and check the value within three minutes before the unit warms up. (Otherwise, the result will be incorrect.)



10.2. Service Mode Table 1

The service modes can be activated by pressing various button combination on the player and remote control unit.

Player buttons	Remote control unit buttons	Application	ı
PAUSE + OPEN/CLOSE	0	Displaying the UHF display F	Refer to 10.3. Sel Diagnos Function Display)
	5	Jitter check, tilt adjustment *Display shows J_xxx_yyy_zz "yyy" and "zz" shown to the right have nothing to do with the jitter value. "yyy" is the error counter, while "zz" is the focusdrive value. Refer to section 12.4. for Optical Pickup Tilt Adjustment Procedure.	Refer to 12.4. Op Pickup 1 Adjustm
	6	Checking the region numbers and broadcast system	
	7	Checking the program version	Check the FLASH F
	9	Lighting Confirmation Function of Display Tube	
	DISPLAY	Checking the laser drive current	Refer to Optical I Replace Procedu
	PAUSE	Writing the laser drive current value after replacing the optical pickup (do not use for anything other than optical pickup replacement)	
PAUSE SKIP/ SEARCH<< OPEN/CLOSE		Initializing the DVD player (restoring factory preset settings)	Refer to 10.5. Init the DVD

10.3. DVD Self Diagnostic Function-Error Code

Error Code	Error Content	Additional error explanation	Defect 1	Defect 2	Defect 3
	U, H error				
U11	Focus error				
H01	Tray loading error				
H02	Spindle servo error	(Spindle servo, DSC (IC3001) SP motor, CLV servo error)			
H03	Traverse servo error				
H04	Tracking servo error				
H05	Seek error				
H06	Power error	Cannot switch off the power because of the panel and system computer communication error			
H07	Spindle motor drive error		Spindle motor ass'y		
	DSC related				
F500	DSC error	DSC (IC3001) stops in the occurence of servo error (starup, focus error, etc)	Optical pickup	ADSC (IC3001)	FEP (IC3001)
F501	DSC not Ready	DSC-system computer communication error (Communication failure caused by idling of DSC)	ADSC (IC3001)	CPU (IC3001)	
F502	DSC Time out	Similar disposal as F500	Optical pickup	ADSC (IC3001)	FEP (IC3001)
F503	DSC communication Failure	Communication error (result error occured although communication command was sent)	ADSC (IC3001)	FEP (IC3001)	EEPROM
F505	DSC Attention error	Similar disposal as F500	Optical pickup	ADSC (IC3001)	FEP (IC3001)
F506	Invalid media	Disc is flipped over, TOC unreadable, incompatible disc	DISC	FEP (IC3001)	ADSC (IC3001)
	ODC related				
F600	Access failure to management information caused by demodulation error	Operation stopped because navigation data is not accessible caused by the demodulation defect	ODC (IC3001)	FEP (IC3001)	ADSC (IC3001)
F601	Indeterminate sector ID requested	Operation stopped caused by the request to access abnormal ID data	ODC (IC3001)	FEP (IC3001)	ADSC (IC3001)

Error Code	Error Content	Additional error explanation	Defect 1	Defect 2	Defect 3
F602	Access failure to LEAD-IN caused by demodulation error	LEAD IN data unreadable			
F603	Access failure to KEYDET caused by demodulation error	Access failure to CSS data of disc			
F610	ODC abnormality	No permission for command execution	ODC (IC3001)		
F611	6626 QCODE don't read Error	Access failure to seek address in CD series	ODC (IC3001)		
F612	No CRC OK for a specific time	Access failure to ID data in DVD series	ODC (IC3001)		
F630	No reply to KEY DET enquiry	(for internal use only)			
F631	CPPM KEY DET is not available till the FILE terminal	(CPPM file system is unreadable caused by scratches)	DISC	CPPM (*1)	
F632	CPPM KEY DET is not available	Been revoked or falsified	DISC	EEPROM (IC6351)	CPPM (*1)
	Disc code				
F103	Illegal highlight Position	Big possibility of disc specification violation during highlight display	DISC		
	HIC Error				
F4FF	Force initialize failure (time out)		EEPROM (IC6351)		FEP (IC3001)
	Micro computer error				
F700	MBX overflow	When replying message to disc manager			
F701	Message command does not end	Next message is sent before replying to disc manager			
F702	Message command changes	Message is changed before it is sent as a reply to disc manager			
F880	Task number is not appropriate	Message coming from a non- existing task			

Error Code	Error Content	Additional error explanation	Defect 1	Defect 2	Defect 3
F890	Sending message when message is being sent to AV task	Sending message to AV task			
F891	Message couldn't be sent to AV task	Begin sending message to AV task			
F893	FROM		FROM	CPU	
	falsification		(IC6301)	(IC3001)	
F894	EEPROM		EEPROM	Serial	
	abnormality		COI	mmunicati	on
			(IC6351)	on lone	
F895	Language area abnormality	Firm version agreement check for factory preset setting failure prevention	FROM (IC6301)		
F896	No existence model	Firm version agreement check for factory preset setting failure prevention			
F897	Initialize is not completed	Initialize completion check for factory preset setting failure prevention			
F898	Disagreement of hardware and software	Unsuitable combination of AV DECODER, SDRAM and FLASH ROM (firmware)			
F8A0	Message command is not appropriate	Begin sending message to AV task			

Note:

An error code will be canceled if a power supply is turned OFF. *1: CPPM is the copy guard function beforehand written in the disk for protection of copyrights.

10.4. Last Error Code saved during NO PLAY

Error code	Error Content	System computer	Setting task	System computer i error code
F0BF	6) Cannot playback because physical layer is not recoginizable	PCND_NOPLAY PHYSICAL 0x50	DriveManager	0xDOBF
F0C0	8) DVD: Cannot playback because it is not DVD Video/Adio/VR	PCND_NOPLAY VIDEO 0x70	DiscManager	0xDOC0
F0C1	9) DVD: Prohibited by the restricted region code	PCND_NOPLAY RCD 0x80	DiscManager	0xDOC1
F0C2	A) DVD: PAL restricted playback	PCND_NOPLAY PAL 0x90	DiscManager	0xDOC2
F0C3	B) DVD: Parental lock setting prohibits the playback of the entire title	PCND_NOPLAY PTL 0xA0	DiscManager	0xDOC3
F0C4	C) VCD: Prohibited because it is in PHOTO CD fromat	PCND_NOPLAY PHOTO CD 0xB0	DiscManager	0xDOC4
F0C5	VCD/CD: Prohibited because it is CDROM without CD-DA	PCND_NOPLAY CDROM 0xC0	DiscManager	0xDOC5

10.5. Service mode table 2

Pressing various button combinations on the player and remote control unit can activate the service modes.

Item	Player mode and button combination	Function	Display	Cancellation method
Jitter check	In STOP (no disc) mode, press PAUSE and OPEN buttons on the player, and "5" button on the remote control unit.	Jitter check Jitter rate is measured and displayed. Measurement is repeatedly done in the cycle of one second. Read error counter starts from zero upon mode setting. When target block data failed to be read out, the counter advances by one increment. When the failure is caused by minor error, it may be corrected when retried to enable successful reading. In this case, the counter advances by one. When the error persists even after retry, the counter may jump by two or more.	J_xxx_yyy_zz Focus drive value Read error counter Jitter rate Jitter cate is shown in decimal notation to one place of decimal. Focus drive value is shown in hexadecimal notation.	Press STOP or OPEN button.
Error code check	in STOP (no disc) mode, press PAUSE and OPEN buttons on the player, and "0" button on the remote control unit." With pointing of cursor up and down on display, the panel controller switches serial number of history and sends out the command accordingly.	Error code check The latest error code stored in EEPROM is displayed.	Error code (play_err) is expressed in the following convention. Error code = 0 x DAXX is expressed: → nn UXX Error code = 0 x DBXX is expressed: → nn HXX Error code = 0 x DXXX is expressed: → nn FXXX Error code = 0 x 0000 is expressed: → nn FXXX ** "nn" denotes the serial number of history. ** "xx" denotes the error code.	Cancelled automatically 5 seconds later.
Initial setting of laser drive current	In STOP (no disc) mode, press PAUSE and OPEN buttone on the player, and PAUSE button on the remote control unit.	Initial setting of laser drive currentInitial current value for each of DVD laser and CD laser is separately saved in EEPROM.	LDO_034_028 \times_DVD laser current measurement DVD laser current measurement CVD laser current measurement mode. The value denotes the current in decimal notation. The above example shows the initial current is 34mA and 28mA for DVD laser and CD laser respectively when the laser is witched on.	Cancelled automatically 5 seconds later.
DVD laser drive current measurement	In STOP (no disc) mode, press PAUSE and OPEN buttons on the player, and DISPLAY button on the remote control unit.	DVD laser drive current measurement .DVD laser drive current is measured and the result is displayed together with the initial value stored in EEPROM. After the measurement, DVD laser emission is kept on. It is turned off when POWER key is switched off. (It is also turned off when POWER button on the player is switched off.)	LDD_034_032 Measured current Initial current stored in EEPROM DVD laser current measurement mode The value denotes the current in decimal notation. The above example shows the initial current is 34mA and the measured value is 32mA.	Cancelled automatically 5 seconds later.
ADSC internal RAM data chock	In STOP (no disc) mode, press PAUSE and OPEN buttons on the player, and RETURN button on the remote control unit.	ADSC internal RAM data check -ADSC internal RAM data is read out and displayed. Change the address with CLEAR key operation to show the data for 11 addresses.	A_OFA_6901 Address Address ADSC internal RAM data check mode The value is shown in hexadecimal notation. The above example shows the data in ADSC address DFAh is 6901h.	Press STOP or OPEN button.
Servo process display	In STOP (no disc) mode, press PAUSE and FWD-SKIP buttons on the player, and "7" button on the remote control unit.	Servo process display The servo process from STOP to ACCESS is displayed.		Pull out the AC cord.
CD laser drive current measurement	In STOP (no disc) mode, press PAUSE and FWD-SKIP buttons on the player, and DISPLAY button on the remote control unit.		LDC_028_026 Measured current in EEPROM initial current measurement mode in EEPROM to be a current measurement mode in the value denotes the current in decimal notation. The above example shows the initial current is 28mA and the measured value is 26mA.	Cancelled automatically 5 seconds later.

Item	Player mode and button combination	Function	Display	Cancellation method
Version display	In STOP (no disc) mode, press PAUSE and OPEN buttons on the player, and "7" button on the remote control unit.	Version display	Srrr_xxyzzz	Cancelled automatically 5 seconds later.
Lighting of display tube	In STOP (no disc) mode, press PAUSE and OPEN buttons on the player, and "9" button on the remote control unit.	Lighiting of display tube		Repeat the same operation.
Dealer's lock	In STOP (no disc) mode, press STOP button on the player, and POWER button on the remote control unit for 1 second or longer.	Dealer's lock The lock is switched ON or OFF. When dealer's lock is ON, it prohibits switching off of the secondary power and tray opening. When the lock is switched, its ON/OFF status is stored in EEPROM.	- "LOCKED" sign appears when dealer's lock is switched on, or when secondary power key or tray opening key is pressed while the lock is on "UNLOCKED" sign appears when dealer's lock is switched off.	Repeat the same operation.
Initialization	In STOP (no disc) mode, press PAUSE, BWD-SKIP and OPEN buttons on the player for 3 seconds or longer.	Initialization User settings are cancelled and player is initialized to factory setting.	"INITIALIZE"	
Region display	In STOP (no disc) mode, press PAUSE and OPEN buttons on the player, and "6" button on the remote control unit.	Region display	X_y-y_zzz A A Panel controller jumper information N: NTSC / 6: PAL60 N: noPAL / P: PAL Region No.	Cancelled automatically 5 seconds later.
Item	Player mode and button combination	Function	Display	Cancellation method
Timer 1 check	In STOP (no disc) mode, press PAUSE and FWD-SKIP buttons on the player, and '5' button on the remote control unit.	Timer 1 check Laser operation timer Operation time is measured separately for DVD laser and CD laser.	T1_1234_5678 Shown to the left is DVD laser time, and to the right CD laser time. Time is shown in 4 digits of decimal notation in a unit of 10 hours. "0000" will follow "9999".	Cancelled automatically 5 seconds later.
Timer 1 reset	While displaying Timer 1 data, press STOP and FWD-SKIP buttons on the player, and "5" button on the remote control unit.	Timer 1 reset Laser operation timer Operation time of both DVD laser and CD laser is reset all at once.	T1_0000_0000	Cancelled automatically 5 seconds later.
Timer 2 check	In STOP (no disc) mode, press PAUSE and FWD-SKIP buttons on the player, and "6" button on the remote control unit.	Timer 2 check Spindle motor operation timer	T2_12345 T2_12345 Time is shown in 5 digits of decimal notation in a unit of 10 hours. "00000" will follow "99999".	Cancelled automatically 5 seconds later.
		I_	I -	

10.6. Sales demonstration lock function

While displaying Timer 2 data, press STOP and FWD-SKIP buttons on the player and "6" button on the remote control unit.

This function prevents discs from being lost when the unit is used for sales demonstrations by disabling the disc eject function. "LOCKED" is displayed on the unit, and ordinary operation is disabled.

T2 00000

Cancelled

automatically 5 seconds later.

10.6.1. Setting

The sales demonstration lock is set by simultaneously pressing STOP button on the player and POWER button on the remote control unit for 1 second or longer.

10.6.2. Cancellation

Timer 2 reset

The lock can be cancelled by the same procedure as used in setting. ("UNLOCKED" is displayed on cancellation. Disconnecting the power cable from power outlet does not cancel the lock.)

10.7. Handling After Completing Repairs

Use the following procedure after completing repairs.

10.7.1. Method

Confirm that the power is turned on:

- 1. Press the "OPEN/CLOSE" button to close the tray.
- 2. Press the "POWER" button to turn off the power.
- 3. Disconnect the power plug from the outlet.

10.7.2. Precautions

Do not disconnect the power plug from the outlet with the tray still open, then close the tray manually.

11. Service Precautions

11.1. Recovery after the dvd player is repaired

- When FROM or module P.C.B. is replaced, carry out the recovery processing to optimize the drive.
 - Playback the recovery disk to process the recovery automatically.
- Recovery disc (Product number: RFKZD03R004)
- Performing recovery
- 1. Load the recovery disc RFKZD03R004 on to the player and run it.
- 2. Recovery is performed automatically. When it is finished, a message appears on the screen.
- 3. Remove the recovery disc.
- 4. Turn off the power.

Note:

This unit requires no initialization process carried out after the traditional DVD players were repaired.

When the recovery measures are taken, the customer setting will return to the factory setting as same as the procedure described in item of "Initialization" in 10.5. is carried out. Write down the contents of the setting before recovery processing, and reset the player.

11.2. Firmware version-up of the DVD player

- The firmware of the DVD player may be renewed to improve the quality including operationability and playerbility to the substandard discs.processing to optimize the drive.
 - The recovery disc has also firmware version-up.
- After version-up, recovery processing is executed automatically.
- Part number of the recovery disc for version-up will be noticed when it is supplied.
- Updating firmware
- 1. Load the recovery disc that is supplied to the player and run it.

- 2. Firmware version of the player is automatically checked. Appropriate message appears whenever necessary.
- 3. Using remote controller's cursor key, select whether version updating is to be done or not. (Selection of Yes/No)
- 4. a. If Yes is selected, version updating is performed.
 - b. If No is selected, only recovery is performed.
- 5. a. When updating is finished, remove the disc according to the message appearing on the screen.
 - b. Remove the disc according to the message appearing on the screen.
- 6. Turn off the power.

Note:

If the AC power supply is shut out during version-up due to a power failure, the version-up is improperly carried out.

In such a case, replace the FROM and carry out the version-up again.

12. ADJUSTMENT PROCEDURES

12.1. Service Tools and Equipment

Application	Name	Number
Tilt	DVD test disc	DVDT-S15 or DVDT-S01
adjustment	TORX screw driver (T6)	Available on sales route. (T6 or RFKZ0185)
Inspection	Extension cable (module P.C.B. to mother P.C.B.)	JGS0098
	Extension cable (module P.C.B. to mother P.C.B.)	JGS0116
Others	Hanari	VFK1784
	Grease	RFKXPG641
	Drysurf	RFKXGUD24
Confirmation	CD test disc	PVCD-K06 or any other commercially available disc
	VCD test disc	PVCD-K06 or any other commercially available disc
	Recovery disc	RFKZD03R004

12.2. Important points in adjustment

12.2.1. Important points in optical adjustment

- Before starting optical adjustment, be sure to take anti-static

measures.

- Optical pickup tilt adjustment is needed after replacement of the following components.
- 1. Optical pickup unit
- 2. Spindle motor unit
- 3. Optical pickup peripheral parts (such as rail)

Notes

Adjustment is generally unnecessary after replacing other parts of the traverse unit. However, make adjustment if there is a noticeable degradation in picture quality. Optical adjustments cannot be made inside the optical pickup. Adjustment isgenerally unnecessary after replacing the traverse unit.

12.2.2. Important points in electrical adjustment

- Follow the adjustment procedures described in this Manual.

12.3. Storing and Handling Test Discs

- Surface precision is vital for DVD test discs. Be sure to store and handle them carefully.
- 1. Do not place discs directly onto the workbench, etc., after use.
- 2. Handle discs carefully in order to maintain their flatness. Place them into their case after use and store them vertically. Store discs in a cool place where they are not exposed to direct sunlight or air from air conditioners.
- 3. Accurate adjustment will not be possible if the disc is warped when placed on a surface made of glass, etc. If this happens, use a new test disc to make optical adjustments.
- 4. If adjustment is done using a warped disc, the adjustment will be incorrect and some discs will not be playable.

12.4. Optical adjustment

12.4.1. Optical pickup tilt adjustment

Measurement point	Adjustment point	Mode	Disc
	Tangential adjustment screw	T01 (inner periphery) play	DVDR-S15 or DVD
	Tilt adjustment screw	T30 (central periphery) play T43 (outer periphery) play	
Measuring equipment		Adjustment value	
None (Main unit display for servicing is used.)		Adjust to the minimum jitt	er value.

12.4.1.1. Adjustment procedure

- 1. While pressing PAUSE and OPEN/CLOSE buttons on the main unit, press "5" on the remote control unit.
- 2. Confirm that "J_xxxyyyzz" is shown on the front display.

For your information:

"yyy" and "zz" shown to the right have nothing to do with the jitter value. "yyy" is the error counter, while "zz" is the focus drive value.

Note:

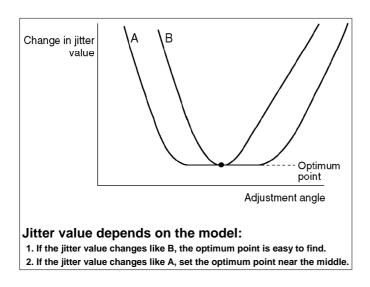
Jitter value appears on the front display.

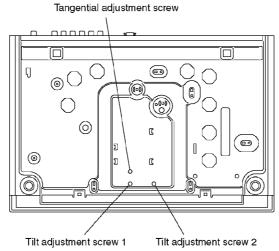
- 3. Play test disc T30 (central periphery).
- 4. Adjust tangential adjustment screw so that the jitter value is minimized.
- 5. Play test disc T30 (central periphery).
- 6. Adjust tilt adjustment screw 1 so that the jitter value is minimized.
- 7. Play test disc T30 (central periphery).
- 8. Adjust tilt adjustment screw 2 so that the jitter value is minimized.
- 9. Repeat adjusting tilt adjustment screws 1 and 2 alternately until the jitter value is minimized.
- 10. Finally please reproduce T01 (inner periphery) and T43 (outer periphery) and check the jitter value. (Please readjust, when the jitter value is extremely different.)

12.4.1.2. Important points

1. Make tangential adjustment first, and then make tilt adjustment.

- 2. Repeat adjusting two or three times to find the optimum point.
- 3. Finish the procedure with tilt adjustment.



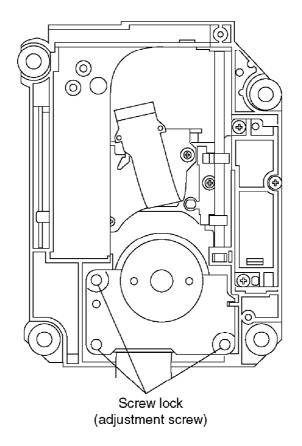


12.4.1.3. Check after adjustment

Play test disc or any other disc to make sure there is no picture degradation in the inner, middle and outer peripheries, and no audio skipping. After adjustment is finished, lock each adjustment screw in position using screw lock.

12.4.1.4. Procedure for screw lock

- 1. After adjustment, remove top cover, tray, clamper base and traverse unit in this sequence.
- 2. Lay the traverse unit upside down, and fix adjustment screw with screw lock.
- 3. After fixing, reassemble traverse unit, clamper base, tray and top cover.



13. Abbreviations

INI	ΓIAL/LOGO	ABBREVIATIONS
Α	A0~UP	ADDRESS
	ACLK	AUDIO CLOCK
	AD0~UP	ADDRESS BUS
	ADATA	AUDIO PES PACKET DATA
	ALE	ADDRESS LATCH ENABLE
	AMUTE	AUDIO MUTE
	AREQ	AUDIO PES PACKET REQUEST
	ARF	AUDIO RF
	ASI	SERVO AMP INVERTED INPUT
	ASO	SERVO AMPOUTPUT
	ASYNC	AUDIO WORD DISTINCTION
		SYNC
В	ВСК	BIT CLOCK (PCM)
	BCKIN	BIT CLOCK INPUT
	BDO	BLACK DROP OUT
	BLKCK	SUB CODE BLOCK CLOCK
	воттом	CAP. FOR BOTTOM HOLD
	BYP	ВҮРАТН
	BYTCK	BYTE CLOCK

INIT	TAL/LOGO	ABBREVIATIONS
С	CAV	CONSTANT ANGULAR
	CBDO	VELOCITY
	CD	CAP. BLACK DROP OUT
	CDSCK	COMPACT DISC
	CDSRDATA	CD SERIAL DATA CLOCK
		CD SERIAL DATA
	CDRF	CD RF (EFM) SIGNAL
	CDV	COMPACT DISC-VIDEO
	CHNDATA	CHANNEL DATA
	CKSL	SYSTEM CLOCKSELECT
	CLV	CONSTANT LINEAR VELOCITY
	COFTR	CAP. OFF TRACK
	СРА	CPU ADDRESS
	CPCS	CPU CHIP SELECT
	CPDT	CPU DATA
	CPUADR	CPU ADDRESS LATCH
	CPUADT	CPU ADDRESS DATA BUS
	CPUIRQ	CPU INTERRUPT REQUEST
	CPRD	CPU READ ENABLE
	CPWR	CPU WRITE ENABLE
	CS	CHIPSELECT
		COMPOSITE SYNC IN
	CSYNCOUT	COMPOSITE SYNC OUT
D	DACCK	D/A CONVERTER CLOCK
	DEEMP	DEEMPHASIS BIT ON/OFF
	DEMPH	DEEMPHASIS SWITCHING
	DIG0~UP	FL DIGIT OUTPUT
	DIN	DATA INPUT
	DMSRCK	DM SERIAL DATA READ
	DMUTE	CLOCK
	DO	DIGITAL MUTE CONTROL
	DOUT0~UP	DROP OUT
		DATAOUTPUT
	DRF	DATA SLICE RF (BIAS)
	DRPOUT	DROP OUT SIGNAL
	DREQ	DATA REQUEST
	DRESP	DATA RESPONSE
	DSC	DIGITAL SERVO CONTROLLER
	DSLF	
	DVD	DATA SLICE LOOP FILTER
		DIGITAL VIDEO DISC

INIT	TAL/LOGO	ABBREVIATIONS
Е	EC	ERROR TORQUE CONTROL
	ECR	ERROR TORQUE CONTROL
		REFERENCE
	ENCSEL	ENCODER SELECT
	ETMCLK	EXTERNAL M CLOCK (81MHz/
	ETSCLK	40.5MHz)
		EXTERNAL S CLOCK (54MHz)
F	FBAL	FOCUS BALANCE
	FCLK	FRAME CLOCK
	FE	FOCUS ERROR
	FFI	FOCUS ERROR AMP
	FEO	INVERTED INPUT
	FG	FOCUS ERROR AMP OUTPUT
	FSC	FREQUENCY GENERATOR
	FSCK	FREQUENCY SUB CARRIER
		FS (384 OVER SAMPLING)
		CLOCK
G	GND	COMMON GROUNDING
		(EARTH)
Н	HA0~UP	HOST ADDRESS
	HD0~UP	HOST DATA
	HINT	HOST INTERRUPT
	HRXW	HOST READ/WRITE
	IECOUT	IEC958 FORMAT DATA
	IPFRAG	OUTPUT
	IREF	INTERPOLATION FLAG
	ISEL	I (CURRENT) REFERENCE
		INTERFACE MODE SELECT
L	LDON	LASER DIODE CONTROL
	LPC	LASER POWER CONTROL
	LRCK	L CH/R CH DISTINCTION
		CLOCK

INIT	TAL/LOGO	ABBREVIATIONS
М	MA0~UP	MEMORY ADDRESS
	MCK	MEMORY CLOCK
	MCKI	MEMORY CLOCK INPUT
	MCLK	MEMORY SERIAL COMMAND
	MDATA	CLOCK
	MDQ0~UP	MEMORY SERIAL COMMAND
	MDQM	DATA
	MLD	MEMORY DATA INPUT/OUTPUT
	MPEG	
		MEMORY DATA I/O MASK
		MEMORYSERIAL COMMAND
		LOAD
		MOVING PICTURE EXPERTS GROUP
0	ODC	OPTICAL DISC CONTROLLER
	OFTR	OFF TRACKING
	OSCI	OSCILLATOR INPUT
	osco	OSCILLATOR OUTPUT
	OSD	ON SCREEN DISPLAY
Р	P1~UP	PORT
	PCD	CD TRACKING PHASE
	PCK	DIFFERENCE
	PDVD	PLL CLOCK
	PEAK	DVD TRACKING PHASE
	PLLCLK /	DIFFERENCE
	PLLOK	CAP. FOR PEAK HOLD
	PWMCTL	CHANNEL PLL CLOCK
	PWMDA	PLL LOCK
	PWMOA, B	PWM OUTPUT CONTROL
		PULSE WAVE MOTOR DRIVEA
		PULSE WAVE MOTOR OUT A, B

INIT	TAL/LOGO	ABBREVIATIONS
R	RE	READ ENABLE
	RFENV	RF ENVELOPE
	RFO	RF PHASE DIFFERENCE
	RS	OUTPUT
	RSEL	(CD-ROM) REGISTER SELECT
	RST	RF POLARITY SELECT
	RSV	RESET
		RESERVE
S	SBI0, 1	SERIAL DATA INPUT
	SBO0	SERIAL DATA OUTPUT
	SBT0, 1	SERIAL CLOCK
	SCK	SERIAL DATA CLOCK
	SCKR	AUDIO SERIAL CLOCK
	SCL	RECEIVER
	SCLK	SERIAL CLOCK
	SDA	SERIAL CLOCK
	SEG0~UP	SERIAL DATA
	SELCLK	FL SEGMENT OUTPUT
	SEN	SELECTCLOCK
	SIN1, 2	SERIAL PORT ENABLE
	SOUT1, 2	SERIAL DATA IN
	SPDI	SERIAL DATA OUT
	SPDO	SERIAL PORT DATA INPUT
	SPEN	SERIAL PORT DATA OUTPUT
	SPRCLK	SERIAL PORT R/W ENABLE
	SPWCLK	SERIAL PORT READ CLOCK
	SQCK	SERIAL PORT WRITE CLOCK
	SQCX	SUB CODE Q CLOCK
	SRDATA	SUBCODE Q DATA READ
	OI (IVI) (DI)	CLOCK
	SRMDT0~7	SERIAL DATA
		SRAM ADDRESS BUS
	SS	SRAM DATA BUS 0~7
	STAT	START/STOP
	0.02.0	STATUS
	0.20 0.	STREAM DATA
	STENABLE	STREAM DATA STREAM DATA INPUT ENABLE
	OTOF:	STREAM DATA POLARITY
	STSEL	SELECT
	STVALID	STREAM DATAVALIDITY
	SUBC	SUB CODE SERIAL
	SBCK	SUB CODE CLOCK
	SUBQ	SUB CODE Q DATA
1	SYSCLK	COD CODE & DATA

	SYSCLK	SUD CODE & DATA
		SYSTEM CLOCK
INIT	TAL/LOGO	ABBREVIATIONS
Т	TE	TRACKING ERROR
	TIBAL	BALANCE CONTROL
	TID	BALANCE OUTPUT 1
	TIN	BALANCE INPUT
	TIP	BALANCE INPUT
	TIS	BALANCE OUTPUT 2
	TPSN	OP AMP INPUT
	TPSO	OP AMP OUTPUT
	TPSP	OP AMP INVERTED INPUT
	TRCRS	TRACK CROSSSIGNAL
	TRON	TRACKING ON
	TRSON	TRAVERSE SERVO ON

INI	ΓIAL/LOGO	ABBREVIATIONS
٧	VBLANK	V BLANKING
	VCC	COLLECTOR POWER SUPPLY
		VOLTAGE
	VCDCONT	VIDEO CD CONTROL
		(TRACKING
	VDD	BALANCE)
	VFB	DRAIN POWER SUPPLY
	VREF	VOLTAGE
	vss	VIDEO FEED BACK
		VOLTAGE REFERENCE
		SOURCE POWER
		SUPPLYVOLTAGE
W	WAIT	BUS CYCLE WAIT
	WDCK	WORD CLOCK
	WEH	WRITE ENABLE HIGH
	WSR	WORD SELECT RECEIVER

INIT	TIAL/LOGO	ABBREVIATIONS
Х	X	X' TAL
	XALE	X ADDRESS LATCH ENABLE
	XAREQ	X AUDIO DATA REQUEST
	XCDROM	X CD ROM CHIP SELECT
	XCS	X CHIP SELECT
	XCSYNC	X COMPOSITE SYNC
	XDS	X DATA STROBE
	XHSYNCO	X HORIZONTAL SYNC OUTPUT
	XHINT	XH INTERRUPTREQUEST
	XI	X' TAL OSCILLATOR INPUT
	XINT	X INTERRUPT
	XMW	X MEMORY WRITE ENABLE
	хо	X' TAL OSCILLATOR OUTPUT
	XRE	X READ ENABLE
	XSRMCE	X SRAM CHIP ENABLE
	XSRMOE	X SRAM OUTPUT ENABLE
	XSRMWE	X SRAM WRITE ENABLE
	XVCS	X V-DEC CHIPSELECT
	XVDS	X V-DEC CONTROL BUS
	XVSYNCO	STROBE
		X VERTICAL SYNC OUTPUT

14. VOLTAGE CHART

Note:

- Indicated voltage values are the atandard values for the unit measured by the DC electronic circuit tester (high-impedance) with the chassis taken as standard. Therefore, there may exist some errors in the voltage values, depending on theinternal impedance of the DC circuit tester.
- 14.1. POWER SUPPLY P.C.B.
- 14.2. INTERMEDIATE P.C.B.
- **14.3. MODULE P.C.B.**
- **14.4. MOTHER P.C.B.**
- 14.5. SCART P.C.B.
- 14.6. FRONT (L) P.C.B.

15. BLOCK DIAGRAM

- 15.1. OVERALL BLOCK DIAGRAM
- 15.2. POWER SUPPLY BLOCK DIAGRAM
- 15.3. SERVO BLOCK DIAGRAM
- 15.4. VIDEO BLOCK DIAGRAM
- 15.5. AUDIO BLOCK DIAGRAM

16. INTERCONNECTION SCHEMATIC DIAGRAM & SCHEMATIC DIAGRAM NOTES

16.1. INTERCONNECTION SCHEMATIC DIAGRAM

16.2. SCHEMATIC DIAGRAM NOTES

This schematic diagram may be modified at any time with the development of new technology.

Important safety notice:

Components identified by A mark have special characteristics important for safety.

Furthermore, special parts which have purpose of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used. When replacing any of components, be sure to use only manufacture's specified parts shownin theparts list.

Important safety notice:

There are special components used in this equipment which are important for safety.

These parts are marked by \triangle in the schematic diagrams. It is essential that these critical parts should be replaced with manufacturer's specified parts to prevent shock, fire, or other hazards. Do not modify the original designwithout permission of manufacturer.

Caution!

IC and LSI are sensitive to static electricity.

Secondary trouble can be prevented by taking care during repair.

Cover the parts boxes made of plastics with aluminum foil.

Ground the soldering iron.

Put a conductive mat on the work table.

Do not touch the legs of IC or LSI with the fingers directly.

17. SCHEMATIC DIAGRAM

17.1. POWER SUPPLY SCHEMATIC DIAGRAM

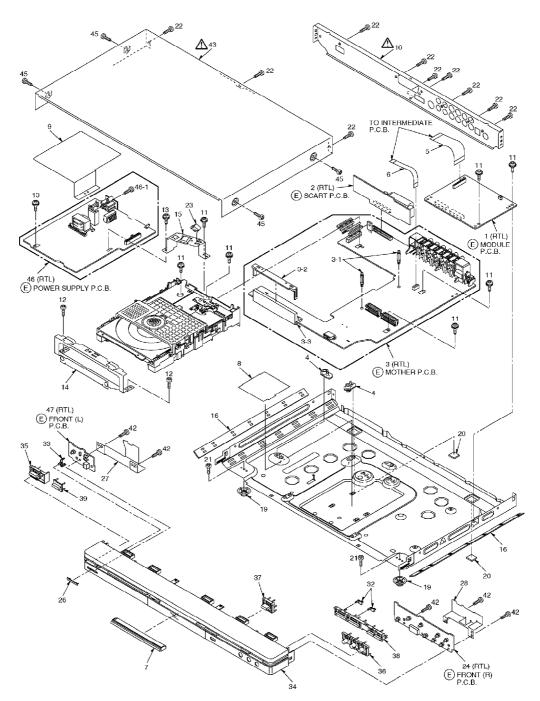
- 17.2. INTERMEDIATE SCHEMATIC DIAGRAM
- 17.3. FORE SECTION (MODULE P.C.B. (1/3)) SCHEMATIC DIAGRAM
- 17.4. DV1 SECTION (MODULE P.C.B. (2/3)) SCHEMATIC DIAGRAM
- 17.5. HIND SECTION (MODULE P.C.B. (3/3)) SCHEMATIC DIAGRAM
- 17.6. VIDEO OUT SECTION (MOTHER P.C.B. (1/4)) SCHEMATIC DIAGRAM
- 17.7. AUDIO OUT1 SECTION (MOTHER P.C.B. (2/4)) SCHEMATIC DIAGRAM
- 17.8. AUDIO OUT2 SECTION (MOTHER P.C.B. (3/4)) SCHEMATIC DIAGRAM
- 17.9. OPERATION SECTION (MOTHER P.C.B. (4/4)) SCHEMATIC DIAGRAM
- 17.10. SCART SCHEMATIC DIAGRAM
- 17.11. FRONT (L) / FRONT (R) SCHEMATIC DIAGRAM

18. PRINT CIRCUIT BOARD

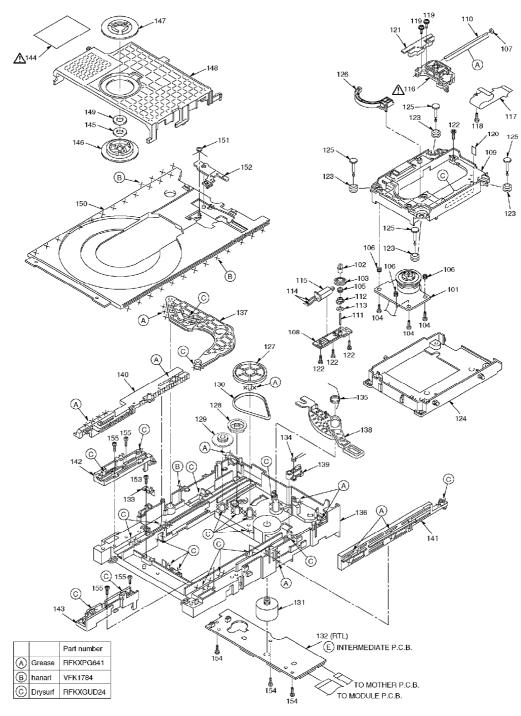
- 18.1. POWER SUPPLY P.C.B.
- 18.2. INTERMEDIATE P.C.B. (1/2) (COMPONENT SIDE)
- 18.3. INTERMEDIATE P.C.B. (2/2) (FOIL SIDE)
- 18.4. MODULE P.C.B. (1/2) (COMPONENT SIDE)
- 18.5. MODULE P.C.B. (2/2) (FOIL SIDE)
- 18.6. MODULE P.C.B. & MOTHER P.C.B. ADDRESS INFORMATION
- **18.7. MOTHER P.C.B.**
- 18.8. SCART P.C.B.
- 18.9. FRONT (L) / FRONT (R) P.C.B.

19. EXPLODED VIEWS

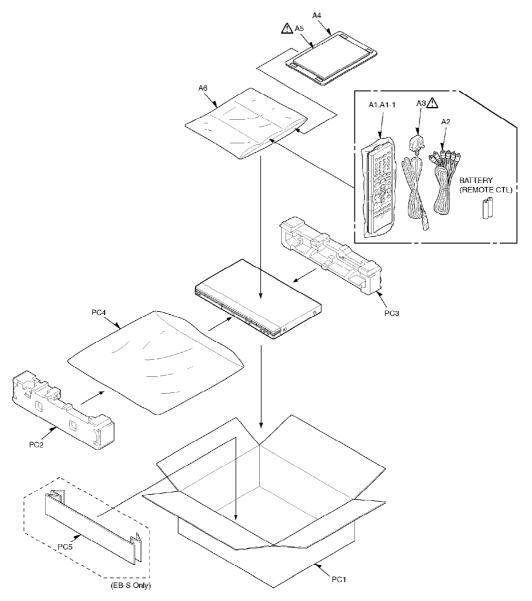
19.1. Casing Parts & Mechanism Section Exploded View



19.2. Mechanism Section Exploded View



19.3. Packing & Accessories Section Exploded View



20. REPLAFCEMENT PARTS LIST

Notes:

*Important safety notice:

Components identified by A mark have special characteristics important for safety.

Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used.

When replacing any of components, be sure to use only manufacture's specified parts shown in the parts list.

- *Warning: This product uses a laser diode. Refer to caution statements.
- *Capacity values are in microfarads (# F) unless specified otherwise, P=Pico-farads (pF), F= Farads (F).
- *Resistance values are in ohms, unless specified otherwise, 1K=1,000 (OHM), 1M=1,000k (OHM).
- *The marking (RTL) indicates the retention time is limited for this item. After the discontinuation of this assembly in production, it will no longer be available.
- *"<IA> <IC>", marks in Remarks indicate languages of instruction manuals. [<IA>: Germany/

Italian/French/Netherlands/Swedish/Danish,<IB>:Spanish/Polish,<IC>:English.] *All parts are supplied by S.P.C..

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
<u> </u>	REP3500E N	MODULE P.C.B.	1	
 2	REP3529A-S S	SCART P.C.B.	1	(RTL)
= 3		MOTHER P.C.B.	1	(RTL)
<u>-</u> 3-1		PCB SUPPORT		(1112)
3-2		FL HOLDER(B)	1	
3-3		FL HOLDER(A)	1	
<u>4</u>		PCB SUPPORT(B)		
<u> </u>	-	FFC(50P)	1	
<u>=</u> <u>6</u>		FFC(7P)	1	
<u>-</u> <u>7</u>		TRAY TOP	1	(K)
<u>-</u> 7		TRAY TOP	1	(S)
<u> </u>		PROTECTION SHEET	1	(0)
<u>2</u> 9		SHEET	1	
10		REAR PANEL	1	Δ
				177
11	RHD30101 S	SCREW	7	
12	RHD30105	SCREW	2	
13	RHDC0003	SCREW	2	
<u>14</u>	RMAC0007 F	FRONT ANGLE	1	
<u>15</u>	RMAC0008	MECHA SUPPORT	1	
<u>16</u>	RGKC0014-HJ	DECORATION PLATE	2	(K)
16	RGKC0014-KJ	DECORATION PLATE	2	(S)
<u>19</u>	RKA0132-K F	-00T	2	
20	RKA0137-K F	OOT RUBBER	2	
21	XTV3+6G S	SCREW	2	
22	VHD0690 S	SCREW	10	
23	VMC1240 E	EARTH PLATE	1	
24	REP3530AB-M F	FRONT(R)P.C.B.	1	(RTL)
26	RGBC0002 F	PANASONIC BADGE	1	
27	RMAC0009 F	RONT ANGLE(L)	1	
28	RMAC0010 F	RONT ANGLE(R)	1	
32		LIGHTING PIECE(A)	2	
33		LIGHTING PIECE(B)	1	
34		FRONT PANEL ASS'Y1	1	(K)
34		FRONT PANEL ASS'Y1	1	(S)
<u>35</u>		POWER BUTTON	1	(K)
35		POWER BUTTON	1	(S)
<u>36</u>		PLAY BUTTON	1	
3 <u>7</u>		OPEN/CLOSE BUTTON	1	(K)
37		OPEN/CLOSE BUTTON	1	(S)
3 <u>8</u>		QUICK SEARCH BUTTON	1	(K)
38		QUICK SEARCH BUTTON	1	(S)
<u> </u>		REMOTE CONTROL WINDOW	1	(-)
12		SCREW	5	
13		TOP PANEL	1	A.
		-		(к) 🗥
43	RKMC0004-S T	TOP PANEL	1	(S) A
45	VHD1041 S	SCREW	4	(K)
45	VHD1094 S	SCREW	4	(S)

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
<u>46</u>	REP3530AD-M	POWER SUPPLY P.C.B.	1	(RTL)
46-1	XYN3+F8	SCREW	1	
<u>47</u>	REP3530AC-M	FRONT(L) P.C.B.	1	(RTL)
<u>101</u>	BML3E4CRX	SPINDLE MOTOR	1	
<u>102</u>	RDG0557	PINION SHAFT	1	
<u>103</u>	RDG0558	BEVEL GEAR	1	
104	RHD17042	SCREW	3	
<u>105</u>	RMB0713	THRUST SPRING	1	
<u>106</u>	RMB0714	ADJUST SPRING	3	
<u>107</u>	RMG0617-H	CUSHION RUBBER(A)	1	
<u>108</u>	RMQ1112	MOTOR COVER	1	
<u>109</u>	RMR1466-K	TRAVERSE BASE	1	
<u>110</u>	RMS0788	GUIDE SHAFT	1	
<u>111</u>	RMS0798	GEAR SHAFT	1	
<u>112</u>	RMX0233	THRUST WASHER	1	
<u>113</u>	RMX0247	WASHER	1	
<u>114</u>	RWJ6702042	MOTOR CABLE	1	
<u>115</u>	RXQ0946	TRAVERSE MOTOR ASS'Y	1	
<u>116</u>	RAF3023A-1	OPU	1	⚠
<u>117</u>	RJB2621A	INTERFACE FPC	1	
118	RHD14095	SCREW	1	
119	RHD17046	SCREW	2	
<u>120</u>	RMG0618-H	CUSHION RUBBER(B)	1	
<u>121</u>	RMM0252	OPU DRIVE RACK	1	
122	VHD1224-C	SCREW	4	
<u>123</u>	RMG0598-A	FLOATING RUBBER	4	
124	RMR1467-K	MIDDLE CHASSIS	1	
<u>125</u>	RMS0789	FIXED PIN	4	
<u>126</u>	RMX0246	BLOCK WALL	1	
<u>127</u>	RDG0547	PULLEY	1	
128	RDG0548	RELAY GEAR	1	
<u>129</u>	RDG0549	DRIVE GEAR	1	
<u>130</u>	RDV0070	BELT	1	
<u>131</u>	REM0102	LOADING MOTOR ASS'Y	1	
132	REP3422B-N	INTERMEDIATE P.C.B.	1	(RTL)
<u>133</u>	RMC0387	SUPPORT SPRING	1	
134	RME0351	LOCK LEVER SPRING	1	
<u>135</u>	RMEC0350	CHANGE LEVER SPRING	1	
<u>136</u>	RMK0537	MECHA CHASSIS ASS'Y	1	
<u>137</u>	RML0627	DRIVE ARM	1	
138	RML0628	CHANGE LEVER	1	
<u>139</u>	RML0629	LOCK LEVER	1	
<u>140</u>	RMM0247	DRIVE RACK	1	
<u>141</u>	RMM0248	SUB RACK	1	
142	RMM0250	GUIDE PIECE(L)	1	
143	RMM0253A	GUIDE PIECE(R)	1	
144	RQLCA0141	LASER CAUTION LABEL	1	Δ
<u>145</u>	JSMC0048	MAGNET	1	
146	RMR1446-X	CLAMPER	1	
147	RMR1447-X	MAGNET HOLDER	1	
148	RMR1468-K	CLAMP PLATE	1	
149	XWG6FFY	WASHER	1	
<u>150</u>	RXQ0338-Q	TRAY	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
151	RME0353	TRAY SLIDER SPRING	1	Remarks
152	RML0631	TRAY SLIDER	1	
153	XTN2+6G-C	SCREW	1	
154	XTN26+6G	SCREW	3	
155	XTN26+8G	SCREW	4	
100	X11120100	OOKEN	-	
A1	N2QAJB000067	REMOTE CONTROL ASS'Y	1	
A1-1	HTR028352401	BATTERY COVER	1	
A2	JAC3315N	A/V CORD	1	
A3	RJA0019-2X	AC CORD	1	A.
				(E/EG) Δ
A3	RJA0053-3X	AC CORD	1	(EB) <u></u>
<u>A4</u>	RPQ0164	PAD	1	
<u>A5</u>	RQT6625-D	OPERATING INSTRUCTIONS	1	<ia>(E/EG) △</ia>
A5	RQT6626-E	OPERATING INSTRUCTIONS	1	<ib>(E) △</ib>
A5	RQT6627-B	OPERATING INSTRUCTIONS	1	<ic>(EB) △</ic>
<u>A6</u>	RPF0139-1	POLYETHYLENE BAG	1	, ,
C1001,02	ECQU2A104MLC	0.1U	2	Δ
C1003	ECKMNA471MBV	470P	1	Δ
C1005	ECKMNA102MEV	0.01U	1	Δ
C1011	ECA2WHG220	450V 22U	1	
C1012	ECA2WHG100	450V 10U	1	
C1021	F1B3D221A002	2000V 220P	1	
C1031	ECKD2H182KB5	500V 1800P	1	F1B2H1820001
C1041	ECQB1H223JF4	50V 0.022U	1	1152111626601
C1051	ECQB1H104JF4	50V 0.1U	1	
C1052	ECQB1H683JF4	50V 0.068U	1	
C1053	ECQB1H104JF4	50V 0.1U	1	
C1101	ECQV1H104JL2	50V 0.1U	1	
C1102	ECQB1H223JF4	50V 0.022U	1	
C1111	F2A1A1020054	10V 1000U	1	
C1112	VCEA1AJC102B	10V 1000U	1	F2A1A1020004
C1115	ECJ1XF1C104Z	16V 0.1U	1	
C1116	ECA1AM221	10V 220U	1	
C1117	F2A0J102A247	6.3V 1000U	1	
C1121	F2A1A1020054	10V 1000U	1	
C1125	ECJ1XF1C104Z	16V 0.1U	1	
C1126	F1H1H102A798	50V 1000P	1	
C1127	F2A0J102A247	6.3V 1000U	1	
C1133	ECA1EPX101B	25V 100U	1	
C1141	F2A1E221A147	25V 220U	1	
C1143	ECA1EPX101B	25V 100U	1	
C1151	F2A1E331A147	25V 330U	1	
C1153	VCEA1EJC221B	25V 220U	1	F2A1E2210008
C1154,55	ECA1CM221	16V 220U	2	
C1161	F2A1H5600009	50V 56U	1	
C1165	ECJ1VF1H104Z	50V 0.1U	1	
C1166	F2A1H100A234	50V 10U	1	
C1171	ECA1AHG221	10V 220U	1	
C1191	ECJ1XF1C104Z	16V 0.1U	1	
C1192	ECEA0JKA470	6.3V 47U	1	
01192	ECEAUJNA4/U	0.37 470		

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C2001	F2G0J1010013	6.3V 100U	1	
C2002	EEEFC0J101P	6.3V 100U	1	
C2003-06	ECJ1VF1C104Z	16V 0.1U	4	
C2011,12	F1H1C104A065	16V 0.1U	2	
C2015	ECJ1XC1H102J	50V 1000P	1	
C2016	ECJ1XC1H821J	50V 820P	1	
C2021	F1H1H472A798	50V 4700P	1	
C2023	ECJ1XC1H102J	50V 1000P	1	
C2031,32	ECJ1VF1A105Z	10V 1U	2	
C2033	F1H0J1050013	6.3V 1U	1	
C2034	ECJ1VB1H152K	50V 1500P	1	
C2035	F1H1H221A799	50V 220P	1	
C2036	F1H1C104A065	16V 0.1U	1	
C2037	ECJ1XB1C103K	16V 0.01U	1	
C2038,39	F3F1A1060002	10V 10U	2	
C2051	F1H1C333A091	16V 0.033U	1	
C2052	F1H1H330A799	50V 33P	1	
C2053-55	ECJ1VF1C104Z	16V 0.1U	3	
C2056	ECJ1XB1C103K	16V 0.01U	1	
C2057	ECUX1H181JCV	50V 180P	1	ECJ1XC1H181J
C2058	ECJ1VB1C183K	16V 0.018U	1	
C2059	ECJ1VB1H562K	50V 5600P	1	
C2060	F1H1C104A065	16V 0.1U	1	
C2501	ECEV1CA101WP	16V 100U	1	
C2502-04	ECJ1VF1C104Z	16V 0.1U	3	
C2511-13	ECUVNH103KBV	50V 0.01U	3	F1H1H103A748
C2514	ECJ1VB1C104K	16V 0.1U	1	
C2521	EEVFC1C470P	16V 47U	1	
C2522	ECEV1CA220WR	16V 22U	1	
C2523	EEVFC0J221P	6.3V 220U	1	
C2524-29	ECJ1VF1C104Z	16V 0.1U	6	
C3001,02	F2G0J331A015	6.3V 330U	2	
C3003-18	ECJ1VF1C104Z	16V 0.1U	16	
C3019	ERJ3GEYJ331V	1/16W 330U	1	
C3020-29	ECJ1VF1C104Z	16V 0.1U	10	
C3031-33	ECJ1VF1C104Z	16V 0.1U	3	
C3041	F1H1H220A799	50V 22P	1	
C3051-55	ECJ1VF1C104Z	16V 0.1U	5	
C3061-65	ECJ1VF1C104Z	16V 0.1U	5	
C3101	F2G0J331A015	6.3V 330U	1	
C3102-04	ECJ1VF1C104Z	16V 0.1U	3	
C3102-04	F1H0J1050013	6.3V 1U	2	
C3103,00	ECJ1VF1C104Z	16V 0.1U	1	
C3501	F2A0J221A245	6.3V 220U	1	
C3502,03	ECJ1XF1H103Z	50V 0.01U	2	
C3502,03	ECJ1XB1H103K	50V 0.01U	1	
C3505,06	ECEA0JKA470	6.3V 47U	2	
C3507,08	ECEA0JN470S	6.3V 47U	2	
C3507,08	F2A0J102A247	6.3V 1000U	1	
C3509	F2A03102A247 F2A1A101A206	10V 100U	1	
			_	
C3511	F2A0J102A247	6.3V 1000U	1	
C3512	F2A1A101A206 F2A0J102A247	10V 100U 6.3V 1000U	1	
C3513			. 1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C3515,16	ECA0JM331	6.3V 330U	2	
C3520-25	ECJ1XF1H103Z	50V 0.01U	6	
C3526,27	ECJ1VB0J105K	6.3V 1U	2	
C3531	ECJ1XB1H103K	50V 0.01U	1	
C3534	ECJ1XF1H103Z	50V 0.01U	1	
C3583	F2A0J221A245	6.3V 220U	1	
C3584	ECA1AM221	10V 220U	1	
C3801	ECJ1XF1H103Z	50V 0.01U	1	
C3811	ECJ1VF1H104Z	50V 0.1U	1	
C3812	ECJ1XB1H103K	50V 0.01U	1	
C3813	ECJ1VB1C104K	16V 0.1U	1	
C3814	ECEA0JKS220	6.3V 22U	1	
C3815-17	ECJ1VB0J105K	6.3V 1U	3	
C3818	F2A0J221A245	6.3V 220U	1	
C3823	ECJ1VF1H104Z	50V 0.1U	1	
C3824	ECJ1XB1H103K	50V 0.01U	1	
C3831	ECJ1VF1H104Z	50V 0.1U	1	
C3843	ECEA1CKS101	16V 100U	1	
C3871-74	ECJ1VC1H101J	50V 100P	4	
C4201	F2G0J331A015	6.3V 330U	1	
C4208-10	ECJ1VF1C104Z	16V 0.1U	3	
C4211	F3F1A1060002	10V 10U	1	
C4213	F3F1A1060002	10V 10U	1	
C4215	ECJ1VF1C104Z	16V 0.1U	1	
C4216	F2G0J101A015	6.3V 100U	1	
C4217	ECJ1VF1C104Z	16V 0.1U	1	
C4219,20	F3F1A1060002	10V 10U	2	
C4222	F2G0J331A015	6.3V 330U	1	
C4302	ECHR1H223JZ	50V 0.022U	1	
C4311	VCEA1EAE101	25V 100U	1	F2A1E1010013
C4312	ECA1APX471	10V 470U	1	
C4313-21	ECJ1XF1C104Z	16V 0.1U	9	
C4323	ECA1CPX221B	16V 220U	1	
C4324	F2A1E221A147	25V 220U	1	
C4331-37	ECJ1VC1H820G	50V 82P	7	
C4338	ECUV1H680JCV	50V 68P	1	ECJ1VC1H680J
C4339	ECJ1XF1C104Z	16V 0.1U	1	
C4340	F2A1E221A147	25V 220U	1	
C4341	ECHR1H223JZ	50V 0.022U	1	
C4414-17	VCEA0JAE470B	6.3V 47U	4	F2A0J470A120
C4419-22	F2A1E470A205	25V 47U	4	
C4423-30	ECUVNH102JCV	50V 1000P	8	F1H1H102A737
C4431,32	ERJ3GEY0R00V	1/16W 0	2	
C4588-91	ECJ1XF1E104Z	25V 0.1U	4	
C4751,52	F2A1E470A205	25V 47U	2	
C4753	ECJ1XF1E104Z	25V 0.1U	1	
C4781	F2A0J470A179	6.3V 47U	1	
C4782	ECJ1XF1E104Z	25V 0.1U	1	
C4913	F2A1E221A147	25V 220U	1	
C4921	ECQV1H104JL3	50V 0.1U	1	
C4922	ECA1EPX101B	25V 100U	1	
C4923	ECQV1H104JL3	50V 0.1U	1	
C4933	ECQV1H104JL3	50V 0.1U	1	
C4934	F2A1E221A147	25V 220U	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C5101,02	ECJ1VF1C104Z	16V 0.1U	2	
C5103	F3F1A1060002	10V 10U	1	
C5110,11	ECEV0JA470WR	6.3V 47U	2	
C5115	ECEV0JA470WR	6.3V 47U	1	
C5201-03	ECJ1VF1C104Z	16V 0.1U	3	
C5221	EEE0JA330WR	6.3V 33U	1	
C5222	ECJ1VF1C104Z	16V 0.1U	1	
C5223	EEE1EA4R7SR	25V 4.7U	1	
C5225	ECJ1VF1C104Z	16V 0.1U	1	
C5226	EEE1EA4R7SR	25V 4.7U	1	
C5231,32	F1H1C104A065	16V 0.1U	2	
C6001	F2A0J221A245	6.3V 220U	1	
C6004	F2A1H100A234	50V 10U	1	
C6004	ECJ1XF1C104Z	16V 0.1U	1	
	ECJ1XF1C104Z			
C6012	1	16V 0.1U	1	
C6031-33	ECJ1XF1H103Z	50V 0.01U	3	
C6061	ECJ1XF1C104Z	16V 0.1U	1	
C6095	ECJ1XF1H103Z	50V 0.01U	1	
C6102	ECJ1XF1E104Z	25V 0.1U	1	
C6201	ECJ1VF1C104Z	16V 0.1U	1	
C6202	F1H1H101A799	50V 100P	1	
C6251	F1H1C104A065	16V 0.1U	1	
C6252	F1H0J1050013	6.3V 1U	1	
C6253	ECJ1XB1C103K	16V 0.01U	1	
C6255	EEE0JA101SP	6.3V 100U	1	
C6301,02	ECJ1VF1C104Z	16V 0.1U	2	
C6311,12	ECJ1VF1C104Z	16V 0.1U	2	
C6351	ECJ1VF1C104Z	16V 0.1U	1	
C6561,62	EEE0JA330WR	6.3V 33U	2	
C6563,64	ECJ1VF1C104Z	16V 0.1U	2	
C6565,66	ECJ1XC1H150J	50V 15P	2	
C6567	ECJ1VF1C104Z	16V 0.1U	1	
C6568	ECJ1VC1H150J	50V 15P	1	
D1002	ENC471D5A	DIODE	1	J0LG00000008 🛆
D1011	B0EBKT000002	DIODE	1	
D1031	AP01C	DIODE	1	B0HADV000010
D1041	AU01Z	DIODE	1	B0HAGM000006
D1051,52	1SS254	DIODE	2	B0AAED000003
D1053	MA4022-LTA	DIODE	1	MAZ40220LF
D1054	AU01Z	DIODE	1	B0HAGM000006
D1101	MA7075A	DIODE	1	
D1111	21DQ06FC4	DIODE	1	B0JAMG000013
D1121	21DQ06FC4	DIODE	1	B0JAMG000013
D1122,23	B0EAKL000031	DIODE	2	
D1125	MA2J11100L	DIODE	1	
D1132	MAZ71200BC	DIODE	1	
D1141	11EQS10TA1	DIODE	1	B0JAML000004
D1151,52	11EQS10TA1	DIODE	2	B0JAML000004
D1151,52	B0EAKL000031	DIODE	3	_00/11112000004
	AU01Z		1	BUHYCWOOOG
D1161		DIODE		B0HAGM000006
D1162	MA4043M	DIODE	1	MAZ40430M
D1165	MA4240H	DIODE	1	MAZ42400H
D1171	AK04	DIODE	1	B0JAME000037

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
D1172	B0EAKL000031	DIODE	1	
D1191	MA4039HTA	DIODE	1	MAZ40390HF
D2521	B0ECKM000003	DIODE	1	
D3861	MA3X152A0L	DIODE	1	
D4301	MA4056H	DIODE	1	MAZ40560H
D4921	MA2J11100L	DIODE	1	
D5131	MA2J72800L	DIODE	1	
D6101	LNJ201LPQJA	LED	1	
D6151,52	LNJ301MPUJAD	LED(ZOOM)	2	
DL6001	A2BB00000106	DISPLAY TUBE	1	
F1001	K5D162BK0005	FUSE	1	Δ
FL4201	E1U0 11050018	FILTER	1	
FL6251	F1H0J1050018		1	E1 11E1040000
	VLF1491S104T	FILTER	-	F1J1E1040022
FL6252-54	F1H0J1050018	FILTER	3	
FP2501	JJSHFW15R1E1	CONNECTOR/15P)	1	K1MN15B00041
FP2503	K1MN07B00080	CONNECTOR(15P)	1	K HWIN 13BUUU41
FP3801		CONNECTOR(7P)	1	K1KA19A00011
FP3801 FP5101	VJP3042G019W K1MN30B00031	CONNECTOR(19P)	1	RINATSAUUUTT
FP5101 FP5102	K1MN50B00031	CONNECTOR(30P) CONNECTOR(50P)	1	
FP5201	K1MN50B00021	CONNECTOR(50P)	1	
FP6001	K1MN07A00005	` ,	1	
FP6001 FP6101		CONNECTOR(7P)	1	
	K1MN06C00005	CONNECTOR(6P)	-	
FP6151	K1MN06C00005	CONNECTOR(6P)	1	
FP6152	K1KA10B00176	CONNECTOR(10P)	1	
IC1101	C0DAEMZ00001	IC	1	
IC1151,52	C0CBCHG00003	IC	2	
IC2501	C0GBF0000004	IC	1	
IC2521	C0GBG0000033	IC	1	
IC3001	MN2DS0002AP1	IC	1	
IC3051	C3ABPG000102	IC	1	
IC3061	C3ABPG000102	IC	1	
IC3501	C9ZB00000377	IC	1	
IC3502	C1AB00001486	IC	1	
IC3581	NJM78M05FA	IC	1	C0CAADE00007
IC3811	C9ZB00000432	IC	1	
IC3831	C1AB00001731	IC	1	
IC3861	XN4601TX	IC	1	XN0460100L
IC4211	C0FBBK000036	IC	1	. ,
IC4301-04	NJM4580M	IC	4	C0ABBB000126
IC4305	C0CAADC00013	IC	1	
IC6001	MN101C35DJA	IC	1	
IC6011	PST9327UR	IC	1	C0EBE0000094
IC6101	B3RAD0000049	IC	1	
IC6201	PST596JNR	IC	1	C0EBE0000070
IC6251	C0CBCBE00003	IC	1	
IC6301	RFKFSS70R160	IC	1	
IC6311,12	C0JBAH000074	IC	2	
IC6351	REP3500E	MODULE P.C.B.	1	
IC6561	C1DB00000980	IC	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
J3871	K1FB121A0004	CONNECTOR(21P)	1	
JK4501	K2YZ14000010	JACK,AV OUT	1	
JK4751	K4BK01H00002	JACK,DIGITAL AUDIO OUT	1	
K2041	ERJ3GEY0R00V	1/16W 0	1	
K2501,02	ERJ3GEY0R00V	1/16W 0	2	
< 3011	ERJ6GEY0R00V	1/10W 0	1	
(3012-17	ERJ3GEY0R00V	1/16W 0	6	
(3111	ERJ3GEY0R00V	1/16W 0	1	
K 3116	ERJ3GEY0R00V	1/16W 0	1	
< 3121	ERJ3GEY0R00V	1/16W 0	1	
K 3126	ERJ3GEY0R00V	1/16W 0	1	
K 3131	ERJ3GEY0R00V	1/16W 0	1	
K4316	ERJ3GEY0R00V	1/16W 0	1	
K4751	ERJ3GEY0R00V	1/16W 0	1	
K5201-04	ERJ3GEY0R00V	1/16W 0	4	
K6071	ERJ3GEY0R00V	1/16W 0	1	
K6101	ERJ3GEY0R00V	1/16W 0	1	
K6253	ERJ6GEY0R00V	1/10W 0	1	
K6254	ERJ3GEY0R00V	1/16W 0	1	
K6261,62	ERJ3GEY0R00V	1/16W 0	2	
K6301,02	ERJ3GEY0R00V	1/16W 0	2	
L1001	ELF15N003A	NOISE FILTER	1	Δ
L1111	G0A100H00014	COIL 10UH	1	
L1115	ELELN100KA	COIL 10UH	1	
L1131	VLQEL05S330K	COIL 33UH	1	
L1141	VLQEL05S330K	COIL 33UH	1	
L1151	G0A220G00018	COIL 22UH	1	
L2001,02	G1C100K00020	COIL 10UH	2	
L3101	G1C100K00020	COIL 10UH	1	
L3201	ELELN100KA	COIL 10UH	1	
L3501	G0C220JA0019	COIL 22UH	1	
L3842	VLQEL05T220J	COIL 22UH	1	G0C220JA0003
L4211	G1C220KA0038	COIL 22UH	1	311111111111111111111111111111111111111
L5110	G1C100K00020	COIL 10UH	1	
L5221	G1C100K00020	COIL 10UH	1	
L6001	G0C101JA0019	COIL 100UH	1	
L6002	G0C100JA0019	COIL 10UH	1	
L6561,62	G1C220KA0038	COIL 22UH	2	
LB2501-03	J0JHC0000045	COIL	3	
_B3001,02	J0JHC0000045	COIL	2	
_B3201-03	ERJ3GEYJ101	1/16W 100	3	D0GB101JA002
_B3204-08	VLP0155-T	COIL	5	J0JCC0000119
_B3531-36	J0JBC0000015	COIL	6	
_B3871-74	J0JBC0000015	COIL	4	
_B4200	J0JBC0000015	COIL	1	
_B4201	VLP0155-T	COIL	1	J0JCC0000119
LB4207-12	VLP0155-T	COIL	6	J0JCC0000119
_B4214,15	VLP0155-T	COIL	2	J0JCC0000119
LB4216,17	J0JBC0000015	COIL	2	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
LB4218	ERJ3GEY0R00V	1/16W 0	1	
LB4751	ERJ3GEY0R00V	1/16W 0	1	
LB5101	J0JHC0000045	COIL	1	
LB5102,03	J0JBC0000015	COIL	2	
LB5201	J0JBC0000015	COIL	1	
LB5204,05	VLP0155-T	COIL	2	J0JCC0000119
LB5206	J0JBC0000015	COIL	1	
LB5207	VLP0155-T	COIL	1	J0JCC0000119
LB5208	J0JBC0000015	COIL	1	
LB5210-13	VLP0155-T	COIL	4	J0JCC0000119
LB5214	J0JHC0000045	COIL	1	
LB5215	VLP0155-T	COIL	1	J0JCC0000119
LB5217	VLP0155-T	COIL	1	J0JCC0000119
LB5219	VLP0155-T	COIL	1	J0JCC0000119
LB5220	J0JBC0000015	COIL	1	
LB5222	ERJ3GEY0R00V	1/16W 0	1	
LB5228,29	J0JBC0000015	COIL	2	
LB5231	J0JHC0000045	COIL	1	
LB5233	J0JHC0000045	COIL	1	
LB5235	J0JBC0000015	COIL	1	
LB6001-07	ERJ3GEY0R00V	1/16W 0	7	
LB6151-55	ERJ3GEY0R00V	1/16W 0	5	
LB6301	J0JHC0000045	COIL	1	
LB6561	J0JBC0000015	COIL	1	
LB6562	J0JCC0000167	COIL	1	
LB6564	J0JCC0000077	COIL	1	
LB6566	J0JBC0000015	COIL	1	
LB6567	VLP0155-T	COIL	1	J0JCC0000119
LR1041	J1ZZA0000001	COIL	1	
P1001	K2AA2H000007	AC INLET	1	Δ
				_
PC1	RPGC0108	PACKING CASE	1	(E-K)
PC1	RPGC0109	PACKING CASE	1	(E-R)
PC1	RPGC0110	PACKING CASE	1	(EG-K)
PC1	RPGC0111	PACKING CASE	1	(EG-S)
PC1	RPGC0112	PACKING CASE	1	(EB-S)
PC2	RPNC0029A	CUSHION(F)	1	(LB 0)
PC3	RPNC0029B	CUSHION(R)	1	
PC4	VPF0293-L	POLYETHYLENE BAG	1	
PC5	RPHC0038	BULKHEAD	1	(EB-S)
<u>. 00</u>	14 1100030	BOLINILAD	<u> </u>	(20-0)
PP3201	K1KA22A00044	CONNECTOR(MALE) 22P	1	
PP4301	K1KA26A00089	CONNECTOR(MALE) 26P	1	
. 1 7301		SOUTHE TOTALLE ZOF		
PR1161	VSF0015A025	IC PROTECTOR	1	Δ
PR1171	VSF0015A10	IC PROTECTOR	1	B1ZAZ0000014 A
PR4911,12	VSF0015A10	IC PROTECTOR	2	
			_	B1ZAZ0000014 🗥
PS1001	K1KA23A00003	CONNECTOR(FEMALE)23P	1	
PS1101	K1KB23A00002	CONNECTOR(FEMALE)23P	1	
PS3201	K1KB22A00025	CONNECTOR(FEMALE)22P	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
PS3801	VJS3042F019W	CONNECTOR(FEMALE)19P	1	K1KB19B00005
PS4201	K1KB26A00027	CONNECTOR(FEMALE)26P	1	
PS6001	K1KB10B00045	CONNECTOR(FEMALE)10P	1	
PS6203	VJS4047C010	CONNECTOR(FEMALE)10P	1	K1MN10A00030
Q1021	2SC4908LF654	TRANSISTOR	1	B1BACT000012
Q1051	B3PBA0000104	PHOTO COUPLER	1	Δ
Q1052	2SD1996-S	TRANSISTOR	1	2SD19960SA
Q1115	B1DHCC000029	TRANSISTOR	1	
Q1125	2SB1417PQTA	TRANSISTOR	1	2SB14170JA
Q1126	XN1501	TRANSISTOR	1	XN01501
Q1165	2SA1309AR	TRANSISTOR	1	2SA1309ARA
Q1191	2SD1992A-R	TRANSISTOR	1	
Q3501,02	2SB709ASTX	TRANSISTOR	2	2SB0709ASL
Q3801	2SB709ASTX	TRANSISTOR	1	2SB0709ASL
Q3851,52	2SD601A-R	TRANSISTOR	2	2SD0601AR
Q3861	2SD601A-R	TRANSISTOR	1	2SD0601AR
Q4302	2SD601A-R	TRANSISTOR	1	2SD0601AR
Q4410	2SD132800L	TRANSISTOR	1	
Q4413,14	2SD132800L	TRANSISTOR	2	
Q4415-18	2SD601A-R	TRANSISTOR	4	2SD0601AR
Q4419	2SD132800L	TRANSISTOR	1	
Q4751	2SD601A-R	TRANSISTOR	1	2SD0601AR
Q4901	2SD1862QRTV2	TRANSISTOR	1	B1BACD000011
Q4911	2SB1240PRTV2	TRANSISTOR	1	B1BCCD000013
Q4921	B1CACE000006	TRANSISTOR	1	
Q5111	2SB1115-T	TRANSISTOR	1	B1BDBF000004
Q5115	2SB1115-T	TRANSISTOR	1	B1BDBF000004
Q5211	UN2121	TRANSISTOR	1	UNR212100L
Q5221	2SD1819A0L	TRANSISTOR	1	
Q5225	2SD1819A0L	TRANSISTOR	1	
Q6095	2SD19960HA	TRANSISTOR	1	
QR1115	UN2213	TRANSISTOR	1	UNR2213
QR3502,03	UN2212	TRANSISTOR	2	UNR2212
QR3521,22	UN2212	TRANSISTOR	2	UNR2212
QR3861	UN2212	TRANSISTOR	1	UNR2212
QR3862	UNR211H00L	TRANSISTOR	1	
QR3863	UN2212	TRANSISTOR	1	UNR2212
QR4301	UN2211	TRANSISTOR	1	UNR2211
QR4302	XN0431100L	TRANSISTOR	1	
QR4901,02	XN0431100L	TRANSISTOR	2	
QR6052	DTA123JK-T96	TRANSISTOR	1	B1GDCFEM0002
QR6056,57	DTA123JK-T96	TRANSISTOR	2	B1GDCFEM0002
D1001 02	EDD925 1474	1/AW 470¥	-	
R1001,02	ERDS2FJ474	1/4W 470K	2	
R1031,32	ERDS2FJ224	1/4W 220K	2	
R1041,42	ERDS2FJ334	1/4W 330K	2	
	D0C2680JA038	2W 68	1	
		1/4W 75	1	
R1043 R1051	ERDS2FJ750		 	
R1051 R1052	ERDS2FJ2R2	1/4W 2.2	1	
			1 1 1	

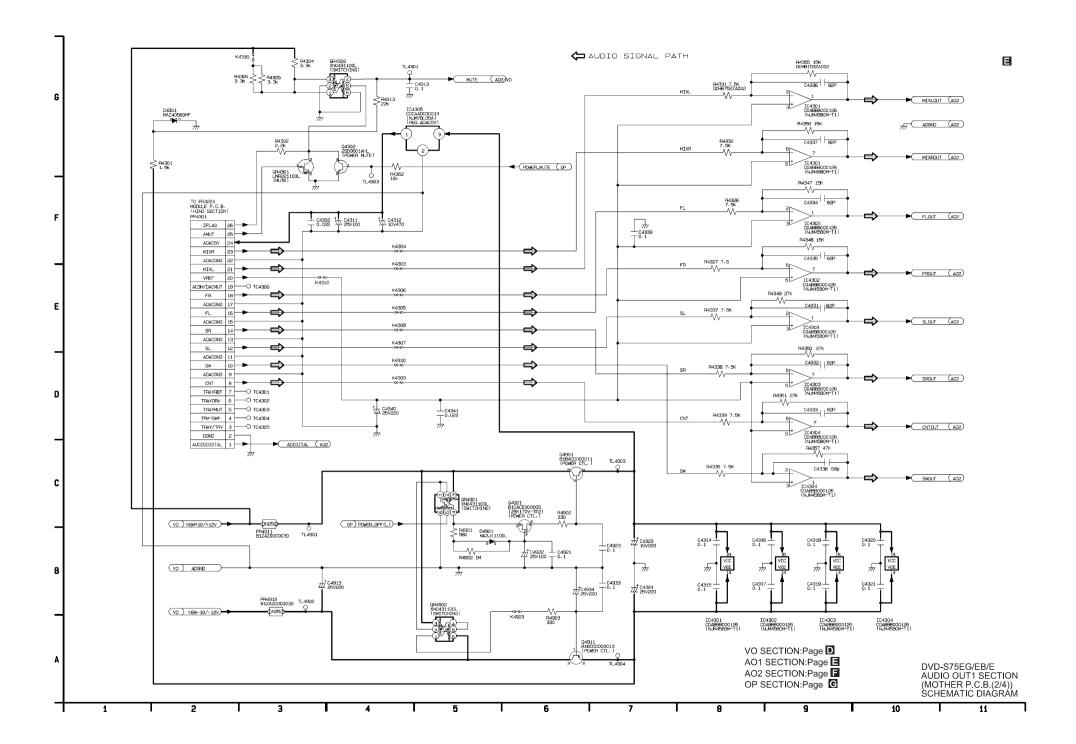
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R1104	MCR03PZHJ561	1/16W 560	1	
R1105	ERJ6GEYJ271V	1/10W 270	1	D0GD271JA003
R1106	ERJ3GEYJ392V	1/16W 3.9K	1	
R1107	ERJ3GEYJ472V	1/16W 4.7K	1	
R1115	ERJ3GEYJ104	1/16W 100K	1	
R1116	ERJ3GEYJ102V	1/16W 1K	1	
R1125	ERJ3GEYF122V	1/16W 1.2K	1	
R1126	ERJ3GEYF132	1/16W 1.3K	1	
R1127	ERJ3GEYF122V	1/16W 1.2K	1	
R1128	ERJ3GEYJ151V	1/16W 150	1	
R1161	ERJ3GEYJ104	1/16W 100K	1	
R1166	ERJ3GEYJ472V	1/16W 4.7K	1	
R1181	ERJ3GEYJ101	1/16W 100	1	D0GB101JA002
R1191	ERJ6GEYJ221V	1/10W 220	1	
R2011	J0JBC0000015	COIL	1	
R2012	ERJ3GEYJ752V	1/16W 7.5K	1	
R2013	J0JBC0000015	COIL	1	
R2014	ERJ3GEYJ223V	1/16W 22K	1	D0GB223JA002
R2015	J0JBC0000015	COIL	1	
R2016	ERJ3GEYJ822V	1/16W 8.2K	1	D0GB822JA002
R2017	J0JBC0000015	COIL	1	
R2018	ERJ3GEYJ822V	1/16W 8.2K	1	D0GB822JA002
R2021	ERJ3GEYD153V	1/16W 15K	1	D0HB153ZA002
R2022	ERJ3GEYJ103V	1/16W 10K	1	D0GB103JA002
R2023	ERJ3GEYD153V	1/16W 15K	1	D0HB153ZA002
R2031	ERJ3GEYJ683V	1/16W 68K	1	D0GB683JA002
R2032	ERJ3GEYJ102V	1/16W 1K	1	
R2033	ERJ3RBD153	1/16W 15K	1	
R2041	ERJ3GEYJ473V	1/16W 47K	1	D0GB473JA002
R2051	ERJ3RBD392	1/16W 3.9K	1	
R2501,02	ERJ3GEYJ101	1/16W 100	2	D0GB101JA002
R2503	ERJ3GEY0R00V	1/16W 0	1	
R2504	ERJ14YKR39H	1/4W 0.39	1	
R2521	ERJ6GEYJ6R8V	1/10W 6.8	1	
R2522-24	ERJ3GEY0R00V	1/16W 0	3	
R3001	VLP0155-T	COIL	1	J0JCC0000119
R3002,03	ERJ3GEYJ103V	1/16W 10K	2	D0GB103JA002
R3012	ERJ3GEYJ473V	1/16W 47K	1	D0GB473JA002
R3013	ERJ3GEYJ330V	1/16W 33	1	D0GB330JA002
R3041-43	ERJ3GEYJ101	1/16W 100	3	D0GB101JA002
R3101	ERJ3RBD153	1/16W 15K	1	
R3102	D0GB202Z0001	1/16W 2K	1	
R3103	ERJ3RBD203V	1/16W 20K	1	
R3104	ERJ3RBD222V	1/16W 2.2K	1	
R3105	D0GB152ZA008	1/16W 1.5K	1	
R3111	ERJ3RED620V	1/16W 62	1	
R3112	ERJ3RED150V	1/16W 15	1	
R3116	ERJ3RED620V	1/16W 62	1	
R3117	ERJ3RED130	1/16W 13	1	
R3117	ERJ3RBD101	1/16W 100	1	ERJ3RBD101V
R3121	ERJ3RED120	1/16W 12	1	
R3122	ERJ3RED560V	1/16W 12	1	
R3131	ERJ3RED560V	1/16W 56	1	

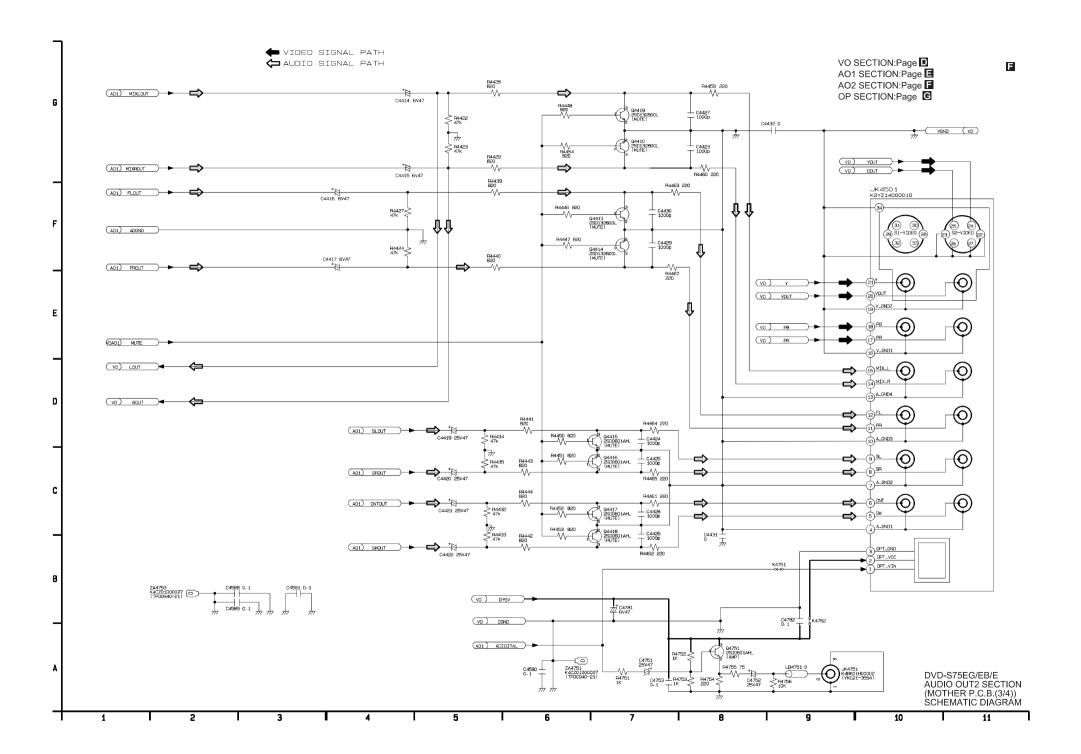
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R3501,02	ERJ3GEYJ102V	1/16W 1K	2	
R3503	ERJ3RBD182V	1/16W 1.8K	1	
R3504	ERJ3RED680	1/16W 68	1	ERJ3RED680V
R3505	ERJ3RBD182V	1/16W 1.8K	1	
R3506	ERJ3RED680	1/16W 68	1	ERJ3RED680V
R3521	ERJ3GEYJ222V	1/16W 2.2K	1	D0GB222JA002
R3523	ERJ3GEYJ103V	1/16W 10K	1	D0GB103JA002
R3531-36	ERJ3GEYF750	1/16W 75	6	ERJ3GEYF750V
R3801,02	ERJ3RBD182V	1/16W 1.8K	2	
R3851-54	ERJ3GEYJ821V	1/16W 820	4	
R3861,62	ERJ3GEYJ223V	1/16W 22K	2	D0GB223JA002
R3863	ERJ3GEYJ472V	1/16W 4.7K	1	
R3864	ERJ3GEYJ223V	1/16W 22K	1	D0GB223JA002
R3865	ERJ3GEYJ472V	1/16W 4.7K	1	
R3866	ERJ3GEYJ471V	1/16W 470	1	
R3867	ERJ3GEYJ183V	1/16W 18K	1	D0GB183JA002
R3868	ERJ3GEYJ223V	1/16W 22K	1	D0GB223JA002
R3871-74	ERJ3GEYF750	1/16W 75	4	ERJ3GEYF750V
R3875,76	ERJ3GEYJ221V	1/16W 220	2	
R3877	ERJ3GEYF750	1/16W 75	1	ERJ3GEYF750V
R3878	ERJ3GEYJ750	1/16W 75	1	
R4213	ERJ3GEYJ470V	1/16W 47	1	
R4301	ERJ3GEYJ152V	1/16W 1.5K	1	
R4302	ERJ3GEYJ222V	1/16W 2.2K	1	D0GB222JA002
R4304-06	ERJ3GEYJ332V	1/16W 3.3K	3	D0GB332JA002
R4313	ERJ3GEYJ223V	1/16W 22K	1	D0GB223JA002
R4326,27	JAR0816P752D	1/16W 7.5K	2	D0HB752ZA002
R4331,32	JAR0816P752D	1/16W 7.5K	2	D0HB752ZA002
R4335	ERJ3GEYJ752V	1/16W 7.5K	1	
R4337-39	ERJ3GEYJ752V	1/16W 7.5K	3	
R4347,48	JAR0816P153D	1/16W 15K	2	D0HB153ZA002
R4349-51	ERJ3GEYJ273V	1/16W 27K	3	D0GB273JA002
R4355,56	JAR0816P153D	1/16W 15K	2	D0HB153ZA002
R4357	ERJ3GEYJ473V	1/16W 47K	1	D0GB473JA002
R4362	ERJ3GEYJ103V	1/16W 10K	1	D0GB103JA002
R4422-24	ERJ3GEYJ473V	1/16W 47K	3	D0GB473JA002
R4427	ERJ3GEYJ473V	1/16W 47K	1	D0GB473JA002
R4428,29	ERJ3GEYJ821V	1/16W 820	2	
R4432-35	ERJ3GEYJ473V	1/16W 47K	4	D0GB473JA002
R4439-44	ERJ3GEYJ821V	1/16W 820	6	
R4446-48	ERJ3GEYJ821V	1/16W 820	3	
R4450-54	ERJ3GEYJ821V	1/16W 820	5	
R4459-65	ERJ3GEYJ221V	1/16W 220	7	
R4467	ERJ3GEYJ221V	1/16W 220	1	
R4751-53	ERJ3GEYJ102V	1/16W 1K	3	
R4754	ERJ6GEYJ221V	1/10W 220	1	
R4755	ERJ6GEYJ750V	1/10W 75	1	
R4756	ERJ3GEYJ103V	1/16W 10K	1	D0GB103JA002
R4902,03	ERJ6GEYJ331V	1/10W 330	2	
R4921	ERJ6GEYJ561V	1/10W 560	1	
R4922	ERJ3GEYJ105V	1/16W 1M	1	
R5101	ERJ3GEYJ472V	1/16W 4.7K	1	
R5101	ERJ3GEYJ2R2V	1/16W 4.7K	1	D0GB2R2JA002
R5111	ERJ12YJ270H	1/16W 2.2 1/2W 27	1	DUGDZNZJAUUZ

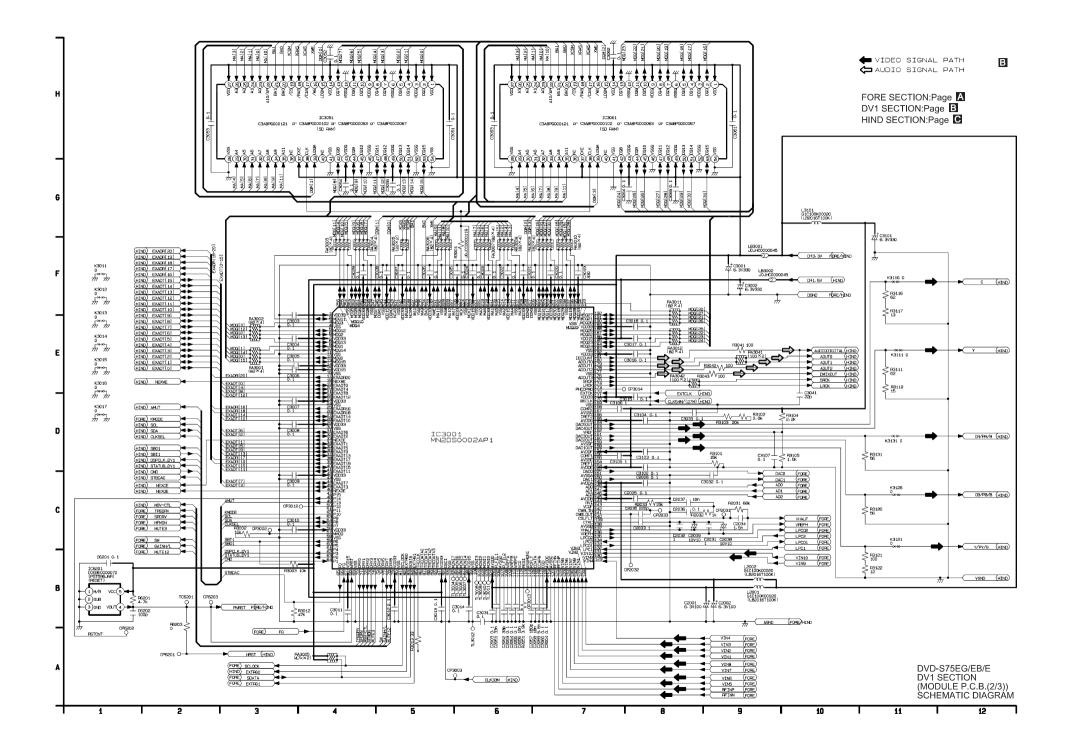
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R5113	ERJ3GEYJ473V	1/16W 47K	1	D0GB473JA002
R5114	ERJ3GEYJ223V	1/16W 22K	1	D0GB223JA002
R5115	ERJ3GEYJ2R2V	1/16W 2.2	1	D0GB2R2JA002
R5116	ERJ12YJ270H	1/2W 27	1	
R5117	ERJ3GEYJ473V	1/16W 47K	1	D0GB473JA002
R5121-25	ERJ3GEYJ560V	1/16W 56	5	
R5126	ERJ3GEYJ102V	1/16W 1K	1	
R5127	ERJ3GEYJ560V	1/16W 56	1	
R5201,02	ERJ3GEY0R00V	1/16W 0	2	
R5221	ERJ3GEY0R00V	1/16W 0	1	
R5222	ERJ3GEYJ102V	1/16W 1K	1	
R5223	ERJ3GEYJ331V	1/16W 330U	1	
R5225	ERJ3GEY0R00V	1/16W 0	1	
R5226	ERJ3GEYJ102V	1/16W 1K	1	
R5227	ERJ3GEYJ331V	1/16W 330U	1	
R5231,32	VLP0155-T	COIL	2	J0JCC0000119
R5233,34	ERJ3GEYJ222V	1/16W 2.2K	2	D0GB222JA002
R6021	ERJ3GEYJ103V	1/16W 10K	1	D0GB103JA002
R6022	ERJ3GEY0R00V	1/16W 0	1	23021000002
R6023	ERJ3GEYJ103V	1/16W 10K	1	D0GB103JA002
R6024	ERJ3GEYJ472V	1/16W 4.7K	1	50051000A002
R6025	ERJ3GEYJ103V	1/16W 4.7K	1	D0GB103JA002
R6026	ERJ3GEYJ272V	1/16W 10K	1	23GD 1033A002
R6031-33	ERJ3GEYJ272V	1/16W 2.7K	3	D0GB103JA002
		1/16W 10K		
R6035-38	ERJ3GEYJ473V		4	D0GB473JA002
R6052	ERJ3GEYJ101	1/16W 100	1	D0GB101JA002
R6056,57	ERJ3GEYJ680	1/16W 68	2	ERJ3GEYJ680V
R6061,62	ERJ3GEYJ102V	1/16W 1K	2	
R6063	ERJ3GEYJ303V	1/16W 30K	1	
R6064-66	ERJ3GEYJ473V	1/16W 47K	3	D0GB473JA002
R6067	ERJ3GEYJ103V	1/16W 10K	1	D0GB103JA002
R6073-75	ERJ3GEYJ103V	1/16W 10K	3	D0GB103JA002
R6079-89	ERJ3GEYJ473V	1/16W 47K	11	D0GB473JA002
R6095	ERJ3GEYJ103V	1/16W 10K	1	D0GB103JA002
R6151	ERJ3GEYJ122	1/16W 1.2K	1	ERJ3GEYJ122V
R6152	ERJ3GEYJ152V	1/16W 1.5K	1	
R6153	ERJ3GEYJ122	1/16W 1.2K	1	ERJ3GEYJ122V
R6154	ERJ3GEYJ152V	1/16W 1.5K	1	
R6155	ERJ3GEYJ122	1/16W 1.2K	1	ERJ3GEYJ122V
R6156	ERJ3GEYJ152V	1/16W 1.5K	1	
R6201	ERJ3GEYJ472V	1/16W 4.7K	1	
R6203	ERJ3GEY0R00V	1/16W 0	1	
R6261	ERJ3GEYJ103V	1/16W 10K	1	D0GB103JA002
R6311,12	ERJ3GEYJ103V	1/16W 10K	2	D0GB103JA002
R6351	ERJ3GEYJ101	1/16W 100	1	D0GB101JA002
R6562	ERJ3GEYJ221V	1/16W 220	1	
R6563	ERJ3GEYJ103V	1/16W 10K	1	D0GB103JA002
R6564	ERJ3GEYJ100	1/16W 10	1	
R6565	ERJ3GEYJ470V	1/16W 47	1	
RA2025	EXBV4V473JV	RESISTOR-RESISTOR	1	
RA2501	EXBV4V103JV	RESISTOR-RESISTOR	1	
RA2521	EXBV8V473JV	RESISTOR-RESISTOR	1	
RA3001-04	EXBV8V820J	RESISTOR-RESISTOR	4	EXBV8V820JV

			T_	
Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
RA3005	EXBV4V220JV	RESISTOR-RESISTOR	1	
RA3006-12	EXBV8V820J	RESISTOR-RESISTOR	7	EXBV8V820JV
RA3025	EXBV4V472JV	RESISTOR-RESISTOR	1	
RA3041,42	EXBV4V101JV	RESISTOR-RESISTOR	2	
RA5121	EXBV8V560JV	RESISTOR-RESISTOR	1	
RA5122,23	EXBV4V560J	RESISTOR-RESISTOR	2	
RA6201	EXBV4V472JV	RESISTOR-RESISTOR	1	
RA6261	EXBV4V103JV	RESISTOR-RESISTOR	1	
RA6351	EXBV4V472JV	RESISTOR-RESISTOR	1	
S6101	EVQ11G07K	SWITCH(POWER)	1	
S6151	EVQ11G07K	SWITCH(OPEN/CLOSE)	1	
S6152	EVQ11G07K	SWITCH(RE-MASTER)	1	
S6153	EVQ11G07K	SWITCH(PAUSE)	1	
S6154	EVQ11G07K	SWITCH(PLAY)	1	
S6155	EVQ11G07K	SWITCH(STOP)	1	
S6156	EVQ11G07K	SWITCH(FWD-SKIP)	1	
S6157	EVQ11G07K	SWITCH(RVS-SKIP)	1	
S6158	EVQ11G07K	SWITCH(ENHANCER)	1	
SW2501,02	RSH1A044-1A	TRAY SWITCH	2	K0L1BA000044
3442301,02	KSITIAU44-TA	TRAT SWITCH		KOLIBA000044
T1021	ETS28AV196AC	TRANSFORMER	1	Δ
W1101,02	ERJ6GEY0R00V	1/10W 0	2	
W3001-13	ERJ6GEY0R00V	1/10W 0	13	
W6151	ERJ6GEY0R00V	1/10W 0	1	
X6001	RSXY8M00M06T	CERAMIC OSCILLATOR	1	H2D800400009
X6501	H0J368600005	CRYSTAL OSCILLATOR	1	
ZA1001,02	EYF52BC	FUSE HOLDER	2	
ZA1001,02 ZA1012	RMCC0001	EARTH SPRING	1	
ZA1012 ZA1021	TUCJ5062	HEAT SINK	1	
ZA1021 ZA1111	K4CZ01000027	TERMINAL	1	
ZA3871,72	VMC1450	EARTH PLATE	2	
ZA4751	K4CZ01000027	TERMINAL	1	
ZA4751 ZA4753	K4CZ01000027	TERMINAL	1	
			1	
ZA6001	K4CZ01000027	TERMINAL	1	

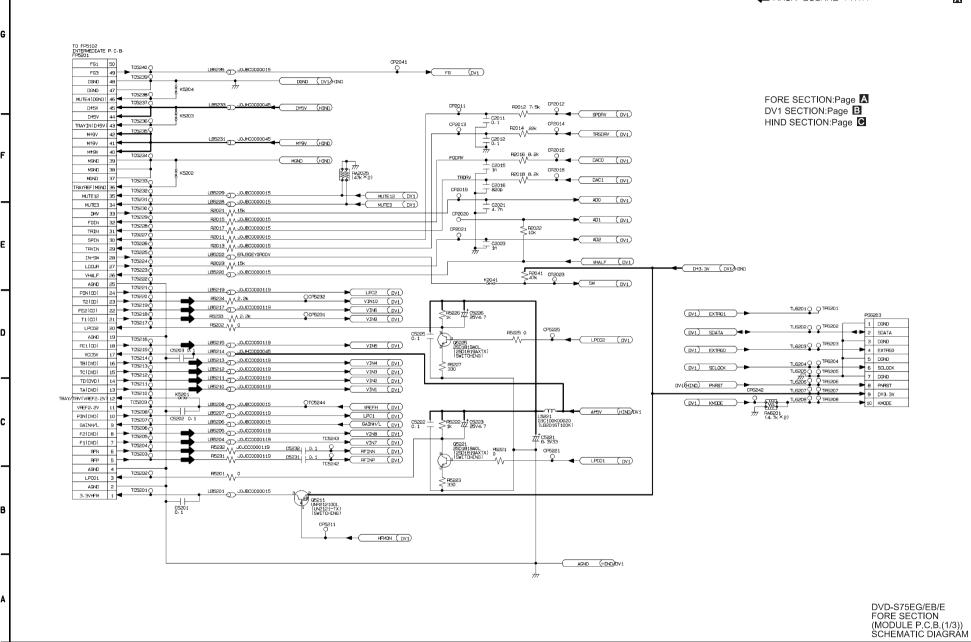
21. Schematic Diagram for printing with A4 size H030500000HP



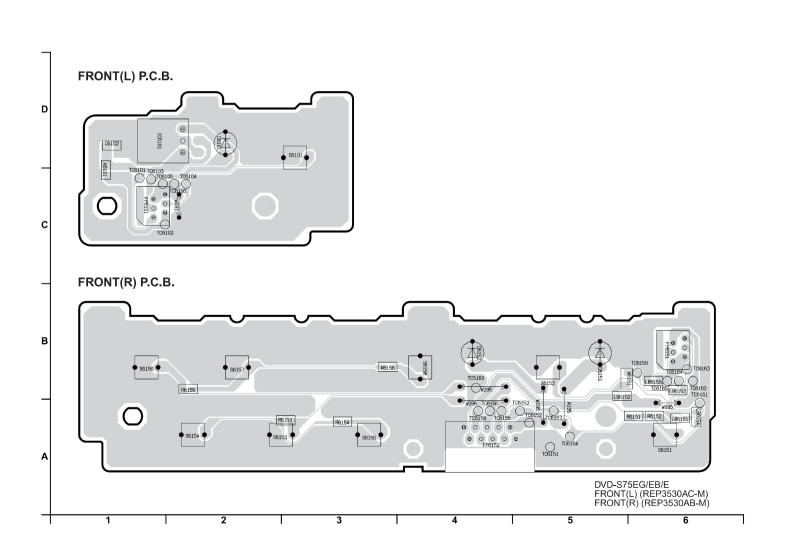


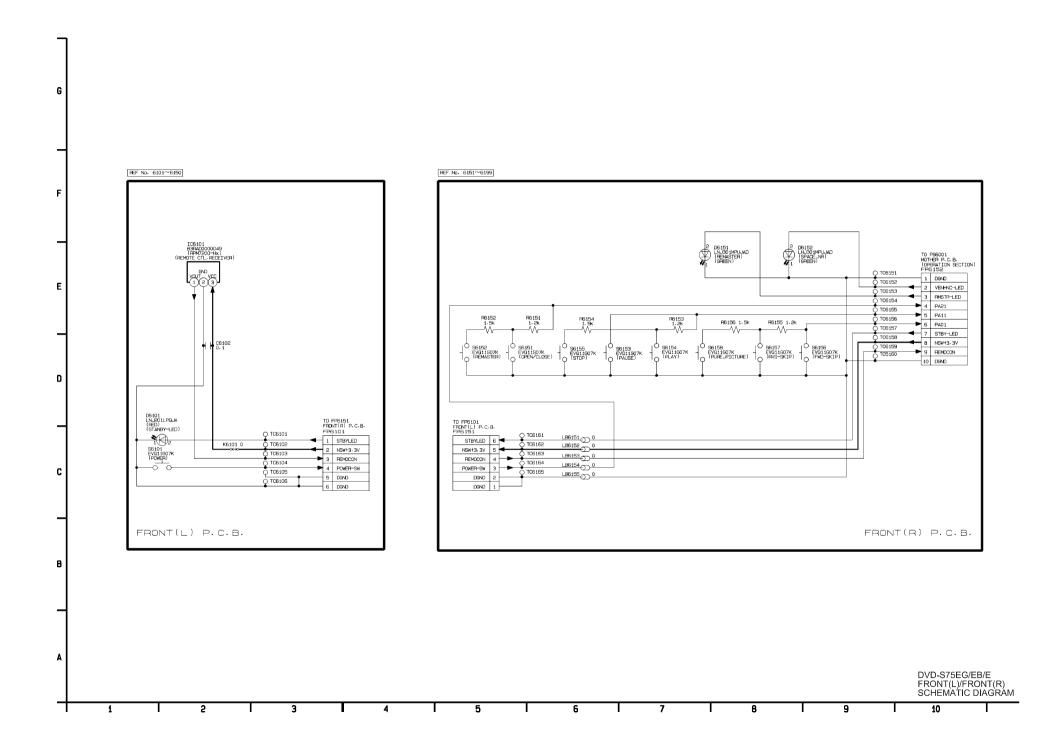


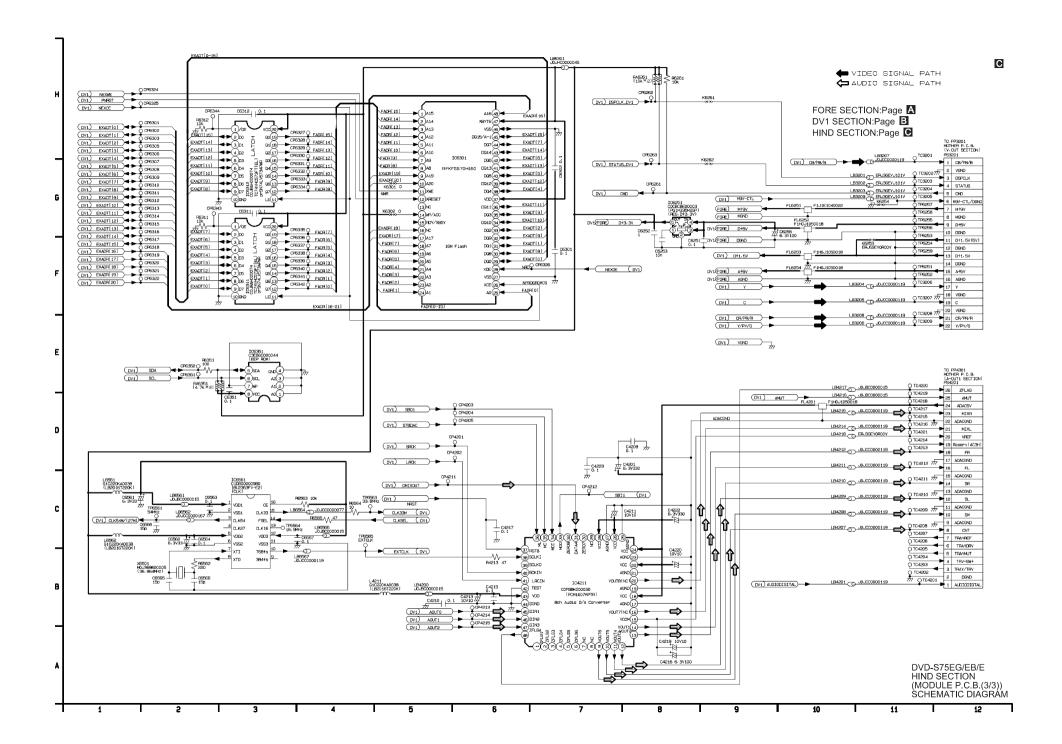


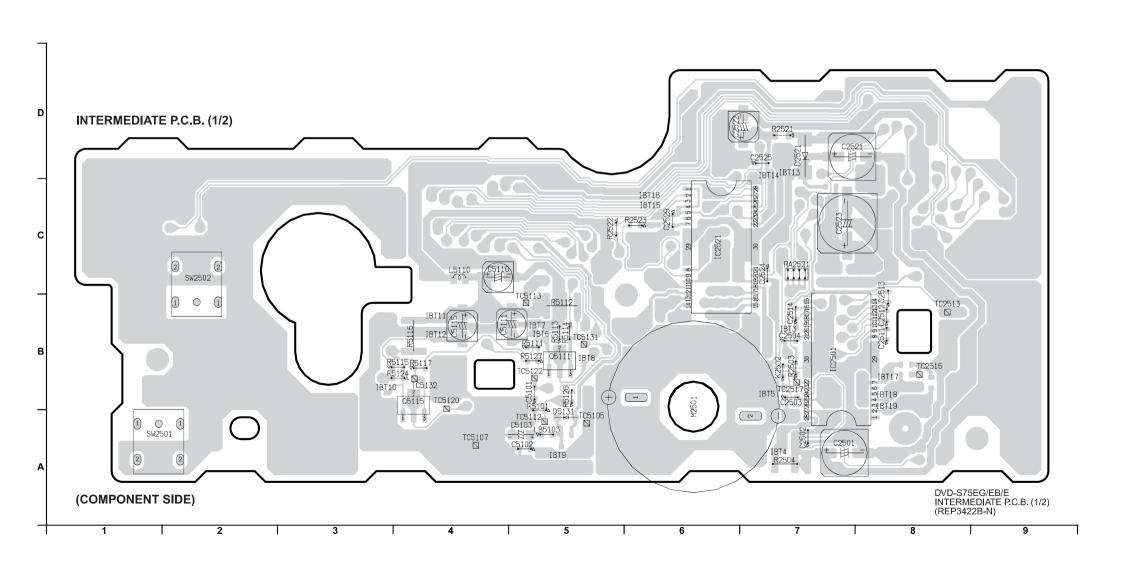


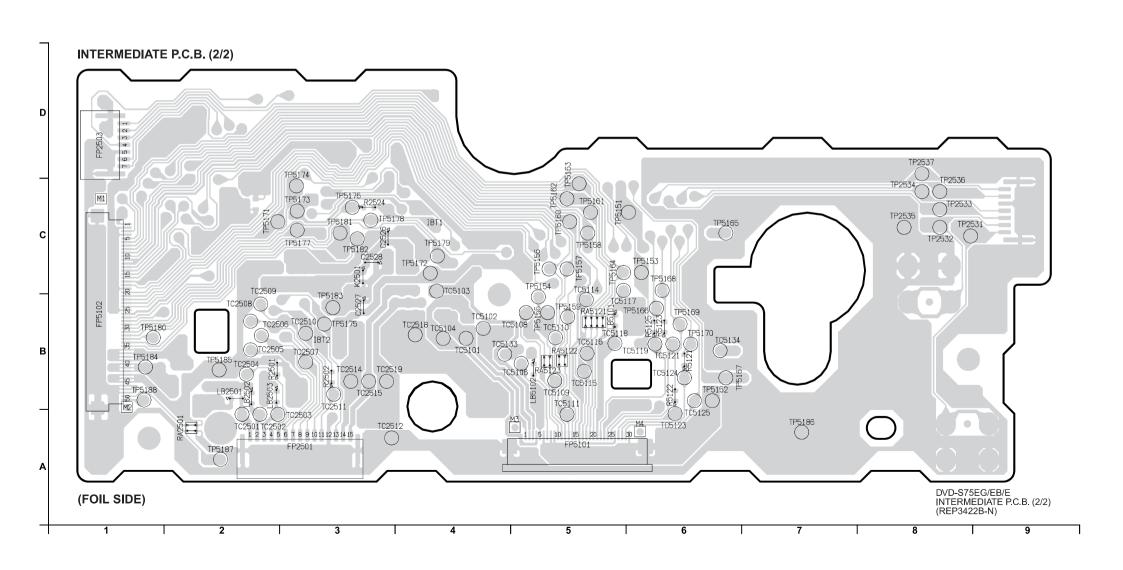
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MODE	1	2	3									
PLAY	3.2	0	3.3									
STOP	3.2	0	3.3									

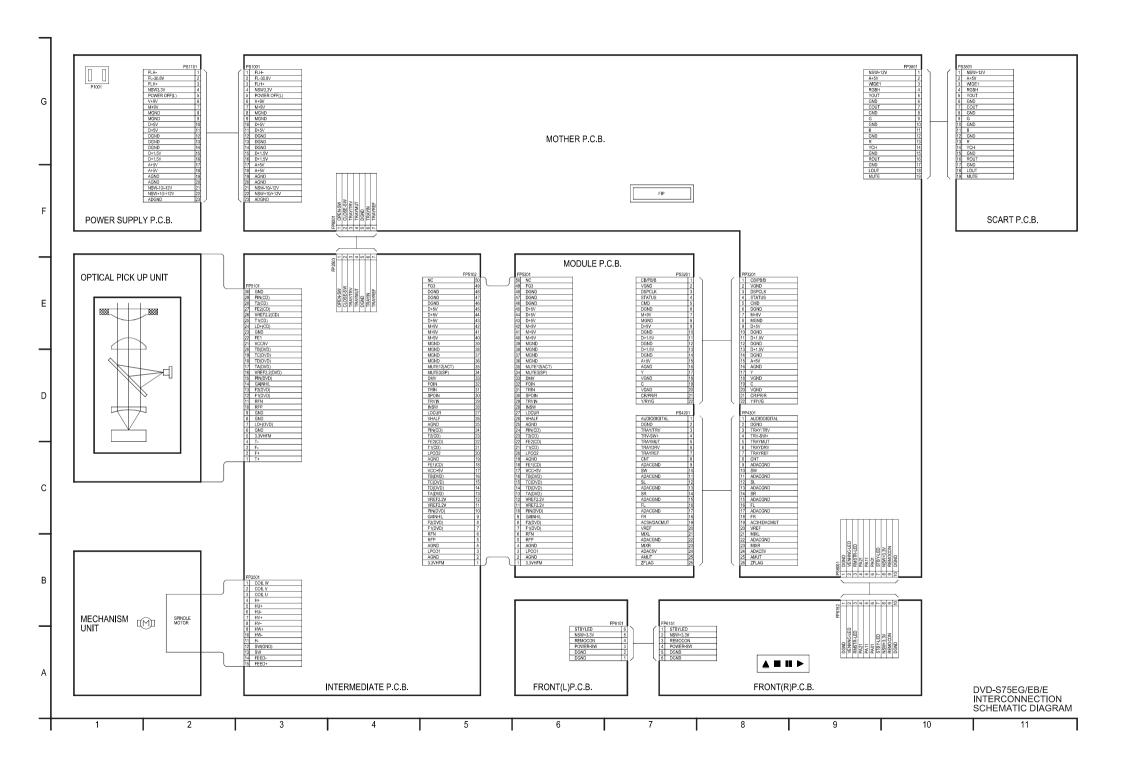




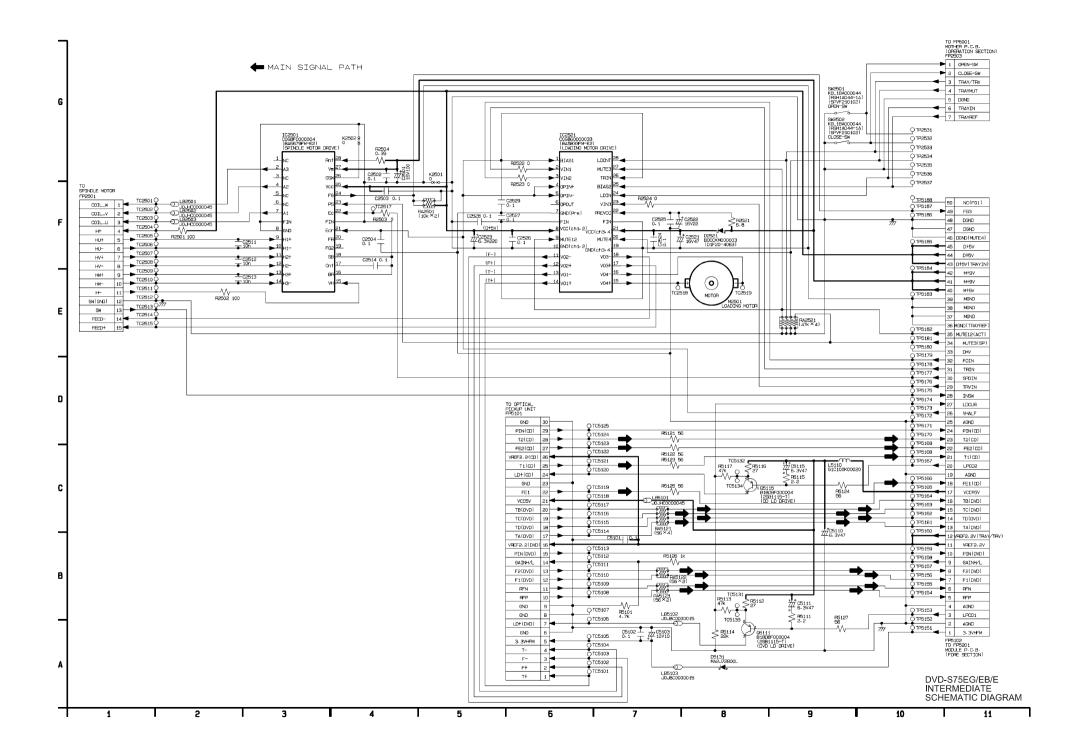


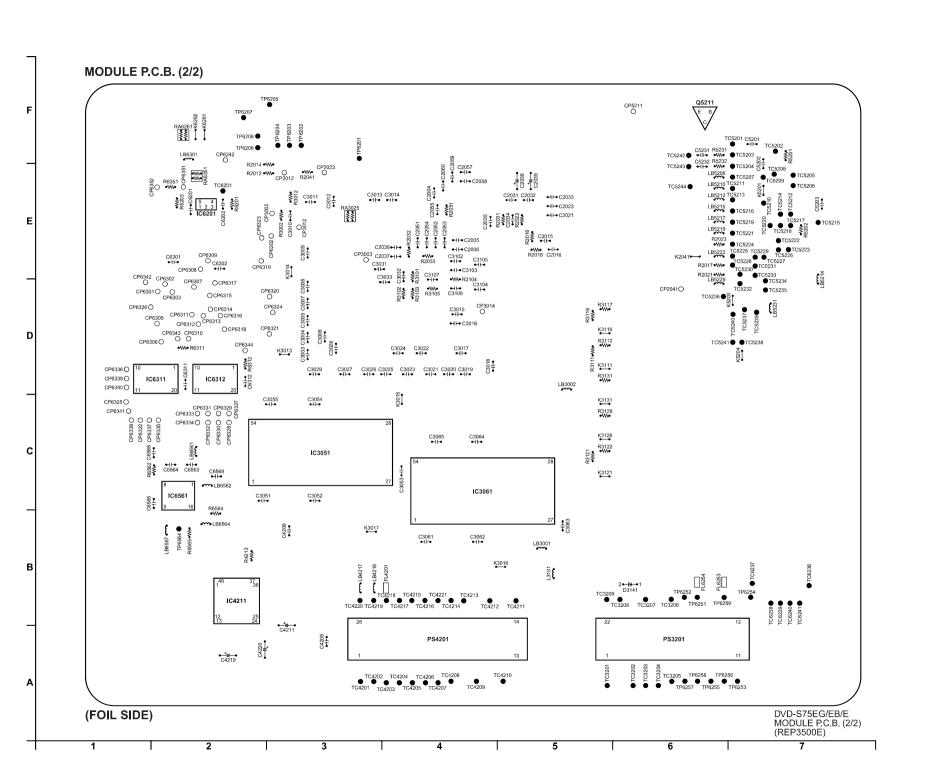






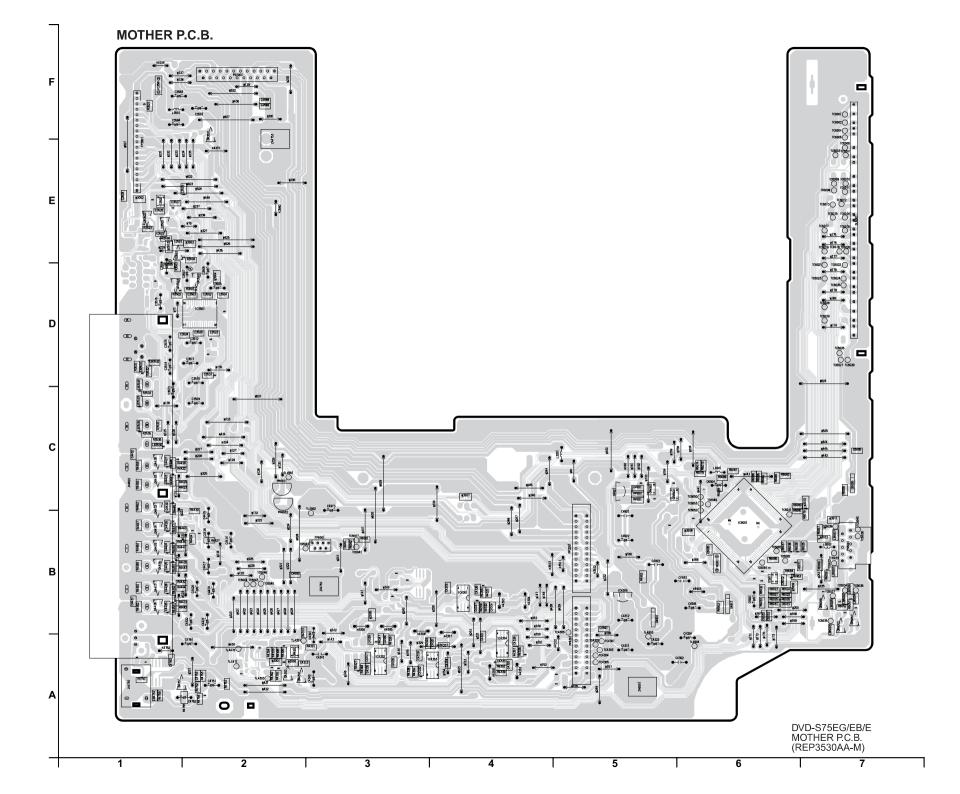
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PLAY	5.2	5.2	5.2	2.9	2.9	0.0	2.9	2.9	2.9	2.9	2.9	0	-	3.9	3.8
STOP	0.2	0.2	0.2	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	0	-	4.0	4.0
Ref No. MODE	TC5101	TC5102	TC5103	TC5104											
PLAY	2.9	2.8	3.0	2.8											
STOP	2.9	2.9	2.9	2.9											
Ref No. MODE	TP2531	TP2532	TP2533	TP2534	TP2535	TP2536	TP2537								
PLAY	3.3	0	3.2	3.2	0	1.6	1.6								
STOP	3.3	0	3.2	3.2	0	1.6	1.6								
Ref No. MODE	TP5172	TP5173	TP5174	TP5175	TP5176	TP5177	TP5178	TP5179	TP5180	TP5181	TP5182	TP5183	TP5184	TP5185	TP5186
PLAY	0	1.6	2.2	3.2	1.6	1.5	1.6	1.5	1.3	3.2	3.2	0	8.9	5.0	0
STOP	0	1.6	2.4	3.2	1.6	1.6	1.6	1.6	1.3	0	0	0	8.9	5.0	0
Ref No. MODE	TP5187	TP5188													
PLAY	1.7	-													
STOP	3.3	-													



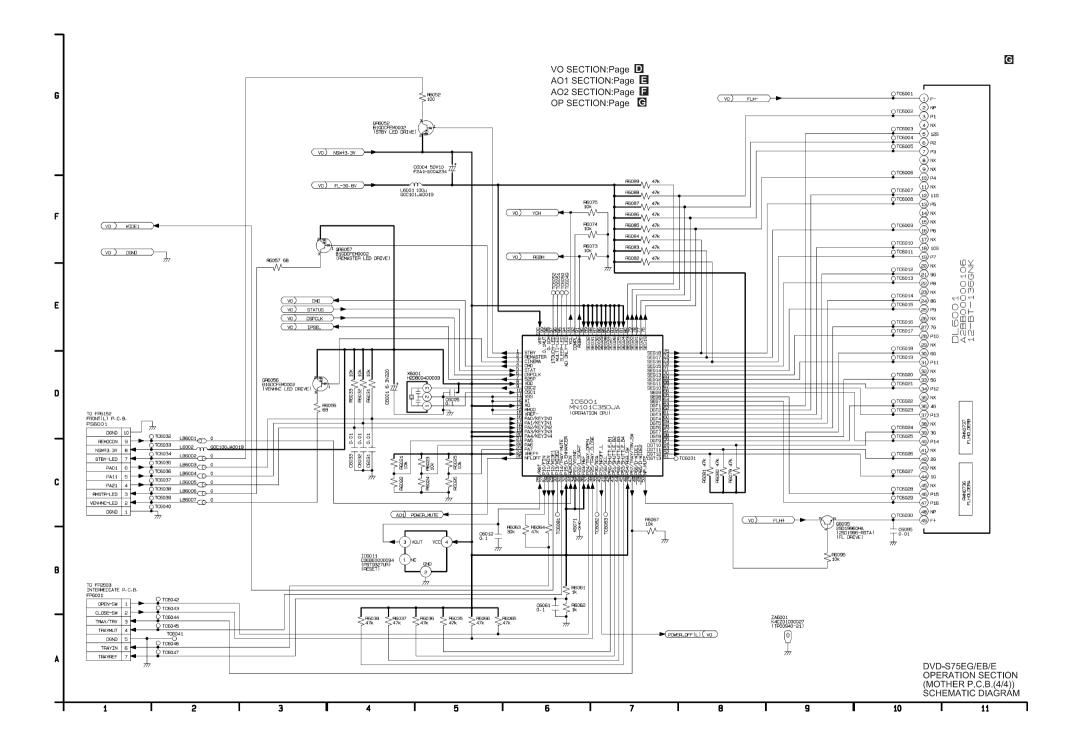


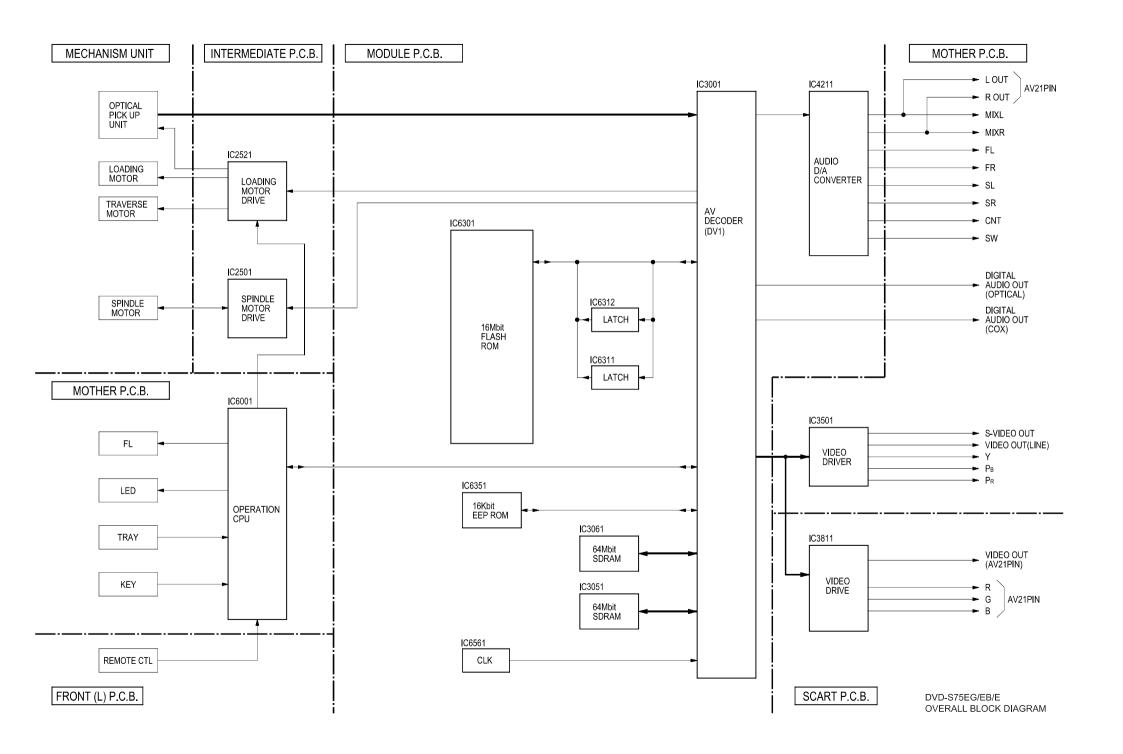
Ref No. MODE	1	2	3	4	5	6	7	8	9	10 C3001	11 12	13	14	15	16	17	18	19	20
PLAY	3.2	2.6	2.5	0	2.7	-	3.2	-	-	-	0 -	-	3.2	1.4	0	0	0	3.2	-
STOP	3.2	2.6	2.8	0	2.7	2.7	3.2	-	2.7		2.2 0	2.7	3.2	1.4	0	0	3.2	0	1.6
Ref No. MODE	21	22	23	24	25	26	27	28	29	30 C	31 32	33	34	35	36	37	38	39	40
PLAY	-	-	3.2	0	0.7	0.1	-	-	3.2	0		3.2	-	-	-	-	0.2	0.3	-
STOP	1.6	1.6	1.6	3.2	0	1.6	1.6	3.2	3.2		3.2	3.2	3.2	0	3.2	0	0	0	0
Ref No.	41	42	43	44	45	46	47	48	49	IC3001	51 52	53	54	55	56	57	58	59	60
PLAY	-	3.2	0	-	-	1.7	0	0	0		0 0	3.2	3.2	3.2	3.2	0	0	2.8	3.2
STOP	0	3.2	0	0	3.2	3.2	0	0	3.2		0 3.2	3.2	3.2	3.2	0	0	0	2.8	3.2
Ref No. MODE	C4	60	62	64	CE	00	67	60	60	IC3001	74 70	70	74	75	70	77	70	70	00
PLAY	61 0.2	62 2.9	63 2.6	64 1.0	65 3.2	66 1.6	67 1.4	68 3.0	69 0		71 72 .5 0	73 0	74 3.2	75 0	76 3.2	77 0	78 3.2	79 3.2	80 0
STOP	0.4	3.2	3.2	0	3.2	3.2	1.4	3.0	0		.6 0	3.2	0	3.2	3.2	0	0	3.2	0
Ref No. MODE	81	82	83	84	85	86	87	88	89	90 9	91 92	93	94	95	96	97	98	99	100
PLAY	0	0	3.2	0	0	0	0	0	0		3.2 1.6		0	0	0	0	1.4	0	0
STOP	3.2	0	3.2	0	0	0	0	0	0		3.2 1.6	0	0	0	0	0	1.4	0	0
Ref No. MODE	101	102	103	104	105	106	107	108	109	IC3001	11 112	113	114	115	116	117	118	119	120
PLAY	0	0	0	3.2	0.8	0	0.7	1.4	1.9		11 112 .8 0.9		1.6	1.3	0	1.0	3.2	0	1.4
STOP	0	0	0	3.2	0.8	0	0.7	1.4	1.9	2.4 1	.8 1.0		1.9	1.3	0.1	0.8	3.2	0	1.4
Ref No.	404	400	400	104	105	100	107	400	120	IC3001	04 1 400	100	104	105	100	407	400	120	140
MODE PLAY	121 1.4	122 1.8	123 1.8	124 1.9	125 1.9	126 1.9	127 1.8	128 1.8	129 1.9		31 132 .8 0.5		134 0	135 0.3	136 1.8	137 1.6	138 0	139 1.6	1.6
STOP	1.4	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7 1	.7 0	0.2	0	0.2	1.7	1.6	0	1.0	1.6
Ref No.	1.14	140	140	111	145	146	117	140	140	IC3001		150	151	155	150	157	150	150	160
MODE N	1.6	142 1.6	143 0	144 1.2	145 3.2	146 2.1	147 1.6	148	149 3.2		51 152 0 1.6		154 1.3	155 0	156 1.9	157 3.2	158 0.5	159 0	160 0.5
STOP	1.5	1.6	0	1.2	3.2	2.4	1.6	1.3	3.2	1.6	0 1.6		1.3	0	1.9	3.2	0.3	0	0.4
Ref No.	404	400	400	404	405	400	407	400	400	IC3001		470	474	475	470	477	470	470	400
MODE N	161 0.4	162 1.3	163 0.6	164 0.8	165 3.2	166 1.3	167 0	168 2.0	169 0		71 172 3.2 1.6		174 1.6	175 1.6	176 1.2	177 0	178 0	179 0	180
STOP	0.3	1.3	0.3	0.8	3.2	1.3	0	2.0	0	1.5	3.2 1.6		1.6	1.6	0	0	0	0	0
Ref No.	101	100	400	101	405	100	407	400	100	IC3001		100	404	105	400	107	100	400	222
MODE PLAY	181 1.6	182 3.2	183 0	184	185	186 1.4	187	188	189 3.2		91 192	193	194 0	195 3.2	196	197	198 0	199	200
STOP	1.6	3.2	0	2.6	2.3	1.4	2.6	2.6	3.2	2.7 2	2.7 2.6	3.0	0	3.2	2.7	2.8	0	2.4	2.8
Ref No.	004	000	000	004	005	000	007	000	000	IC3001	44 044	040	04.4	045	040	047	040	040	000
MODE PLAY	201	202 3.2	203	204	205	206 0	207 1.5	208 1.5	209 3.2		11 212 0 1.5		214 0.6	215 0	216 1.7	217 0.2	218 3.2	219 1.5	0.2
STOP	2.2	3.2	2.6	2.7	2.7	0	2.2	2.2	3.2	1.5	0 1.5		0.1	0	1.5	0	3.2	1.5	0
Ref No.	004	000	000	004	005	222	007	000	222	IC3001			004	205	000	007	000	000	0.40
MODE PLAY	221 0	222 1.4	223 1.7	224 0	225 1.7	226 3.2	227 0.4	228 0	229 0		31 232 0 3.0		234 1.5	235 0	236 0	237 1.5	238	239 3.1	3.2
STOP	0	1.4	1.8	0	1.7	3.2	0	0	0	0	0 3.1	3.2	0	0	0	1.6	2.9	3.1	3.2
Ref No.	0.14	0.40	0.40	044	0.45	0.40	0.47	0.40	0.40	IC3001		050	054	055	050				
MODE PLAY	241 0	242	243 1.5	244 1.4	245 0	246	247	248 0	249		51 252	253	254 0	255 -	256				
STOP	0	3.1	2.2	1.4	0	2.3	0	0	2.7		2.6 2.6	2.7	0	2.7	2.9				
Ref No.	1	2	3	4	-	6	7		0 1	IC3051		1 12	1 11	45	10	17	18	40	20
MODE PLAY	3.2	2	3		5	6	- /	8	9	10	11 12	13 2.5	14 3.2	15	16				
STOP		2.3	3.2		2.3	()	0	2.4	0	2.2	2.2 0			1.6				19 2.7	1.4
Ref No.	3.2	2.3	3.2 3.2	2.3	2.3	0	0 2.8	2.4 3.0	0 3.2		2.2 0 2.6 0	2.3	3.2	1.6 2.2	3.0	2.9	3.1 3.1	2.7 2.9	1.4 1.5
MODE		2.7	3.2	2.3	2.8	0	2.8	3.0	3.2	2.7 2 IC3051	2.6 0	2.3	3.2	2.2	3.0 3.1	2.9 3.0	3.1 3.1	2.7 2.9	1.4 1.5
MODE	21	2.7	3.2	2.3 2.6	2.8	0 26	2.8	3.0	3.2	2.7 2 IC3051 30 3	2.6 0 31 32	2.3	3.2	2.2 35	3.0 3.1 36	2.9 3.0 37	3.1 3.1 38	2.7 2.9	1.4 1.5 40
PLAY STOP		2.7	3.2	2.3	2.8	0	2.8	3.0	3.2	2.7 2 IC3051 30 3 1.7 1 1.5 1	2.6 0 31 32 3.5 0 3.4 0	2.3	3.2	2.2	3.0 3.1	2.9 3.0	3.1 3.1	2.7 2.9	1.4 1.5
PLAY STOP Ref No.	21 1.6 1.5	2.7 22 0 0	3.2 23 0.2 0.1	2.3 2.6 24 0.2 0.1	2.8 25 -	26 1.5 1.5	2.8 27 3.2 3.2	3.0 28 0 0	3.2 29 1.5 1.4	2.7 2 IC3051 30 3 1.7 1 1.5 1 IC3051	2.6 0 31 32 .5 0 .4 0	2.3 33 0 0	3.2 34 0 0	2.2 35 0	3.0 3.1 36 0	2.9 3.0 37 3.2	3.1 3.1 38 1.7	2.7 2.9 39 2.0	1.4 1.5 40 0
PLAY STOP	21 1.6	2.7 22 0	3.2 23 0.2	2.3 2.6 24 0.2	2.8 25 -	0 26 1.5	2.8 27 3.2	3.0 28 0	3.2 29 1.5	2.7 2 IC3051 30 3 1.7 1 1.5 1 IC3051 50 8	2.6 0 31 32 3.5 0 3.4 0	2.3 33 0	3.2 34 0	2.2 35 0	3.0 3.1 36 0	2.9 3.0 37 3.2	3.1 3.1 38 1.7	2.7 2.9 39 2.0	1.4 1.5 40 0
PLAY STOP Ref No. MODE PLAY STOP	21 1.6 1.5	2.7 22 0 0	3.2 23 0.2 0.1	2.3 2.6 24 0.2 0.1	2.8 25 - - 45	0 26 1.5 1.5	2.8 27 3.2 3.2 47	3.0 28 0 0	3.2 29 1.5 1.4	2.7 2 IC3051 30 3 1.7 1 1.5 1 IC3051 50 5 -	2.6 0 31 32 3.5 0 3.4 0	2.3 33 0 0	3.2 34 0 0	2.2 35 0	3.0 3.1 36 0	2.9 3.0 37 3.2	3.1 3.1 38 1.7	2.7 2.9 39 2.0	1.4 1.5 40 0
PLAY STOP Ref No. MODE PLAY STOP Ref No.	21 1.6 1.5 41 0	2.7 22 0 0 42 - 3.0	3.2 23 0.2 0.1 43 3.2 3.2	2.3 2.6 24 0.2 0.1 44 -	2.8 25 - - 45 - 3.0	0 26 1.5 1.5 46 0	2.8 27 3.2 3.2 47 - 3.0	3.0 28 0 0 48 - 3.1	3.2 29 1.5 1.4 49 3.2 3.2	2.7 2 IC3051 30 3 1.7 1 1.5 1 IC3051 50 3 - 3.0 2 IC3061	2.6 0 31 32 .5 0 .4 0 51 52 - 0 2.9 0	2.3 33 0 0 53 - 3.0	3.2 34 0 0 54 0	2.2 35 0 0	3.0 3.1 36 0 0	2.9 3.0 37 3.2 3.2	3.1 3.1 38 1.7 1.7	2.7 2.9 39 2.0 2.9	1.4 1.5 40 0
PLAY STOP Ref No. MODE PLAY STOP	21 1.6 1.5 41 0	2.7 22 0 0 42	3.2 23 0.2 0.1 43 3.2	2.3 2.6 24 0.2 0.1	2.8 25 - - - 45	0 26 1.5 1.5 46 0	2.8 27 3.2 3.2 47	3.0 28 0 0	3.2 29 1.5 1.4 49 3.2	2.7 2 IC3051 30 3 1.7 1 1.5 1 IC3051 50 5 - 3.0 2 IC3061 10	2.6 0 31 32 3.5 0 3.4 0 51 52 - 0	2.3 33 0 0 53	3.2 34 0 0 0	2.2 35 0	3.0 3.1 36 0	2.9 3.0 37 3.2	3.1 3.1 38 1.7	2.7 2.9 39 2.0	1.4 1.5 40 0
PLAY STOP Ref No. MODE PLAY STOP Ref No. MODE PLAY STOP	21 1.6 1.5 41 0	2.7 22 0 0 42 - 3.0	3.2 23 0.2 0.1 43 3.2 3.2	2.3 2.6 24 0.2 0.1 44 - 3.0	2.8 25 - - 45 - 3.0	0 26 1.5 1.5 46 0	2.8 27 3.2 3.2 47 - 3.0	3.0 28 0 0 48 - 3.1	3.2 29 1.5 1.4 49 3.2 3.2 9	2.7 2 IC3051 30 3 1.7 1 1.5 1 IC3051 50 5 - 3.0 2 IC3061 10 - 2.2 2 2.7 2	2.6 0 31 32 3.5 0 .4 0 51 52 - 0 2.9 0	2.3 33 0 0 53 - 3.0	3.2 34 0 0 54 0 0	2.2 35 0 0	3.0 3.1 36 0 0	2.9 3.0 37 3.2 3.2	3.1 3.1 38 1.7 1.7	2.7 2.9 39 2.0 2.9	1.4 1.5 40 0 0
PLAY STOP Ref No. MODE PLAY STOP Ref No. MODE PLAY STOP Ref No.	21 1.6 1.5 41 0 0 1 3.2 3.2	2.7 22 0 0 42 - 3.0 2 2.3 2.7	3.2 0.2 0.1 43 3.2 3.2 3.2 3.2 3.2	2.3 2.6 24 0.2 0.1 44 - 3.0 4 2.3 2.6	2.8 25 - 45 - 3.0 5 2.3 2.8	26 1.5 1.5 1.5 0 0	2.8 27 3.2 3.2 47 - 3.0 7 0 2.8	3.0 28 0 0 48 - 3.1 8 2.4 3.0	3.2 29 1.5 1.4 49 3.2 3.2 9 0 3.2	2.7 2 IC3051 30 3 1.7 1 1.5 1 IC3051 50 5 - 3.0 2 IC3061 10 2.2 2 2.7 2 IC3061	2.6 0 31 32 .5 0 .4 0 51 52 - 0 2.9 0 11 12 2.2 0 2.6 0	2.3 33 0 0 53 - 3.0 13 2.5 2.3	3.2 34 0 0 54 0 0 14 3.2 3.2	2.2 35 0 0 15 1.6 3.1	3.0 3.1 36 0 0	2.9 3.0 37 3.2 3.2 3.2 17 2.9 3.0	3.1 3.1 38 1.7 1.7	2.7 2.9 39 2.0 2.9 2.9 19 2.7 2.9	1.4 1.5 40 0 0 0 1.4 1.5
PLAY STOP Ref No. MODE PLAY STOP Ref No. MODE PLAY STOP	21 1.6 1.5 41 0 0	22 0 0 42 - 3.0	3.2 23 0.2 0.1 43 3.2 3.2 3.2	2.3 2.6 24 0.2 0.1 44 - 3.0	2.8 25 - - 45 - 3.0 5 2.3	26 1.5 1.5 1.5 0 0	2.8 27 3.2 3.2 47 - 3.0	3.0 28 0 0 48 - 3.1 8 2.4	3.2 29 1.5 1.4 49 3.2 3.2 3.2	2.7 2 IC3051 30 3 1.7 1 1.5 1 IC3051 50 5 IC3061 10 2.2 2 IC3061 30 3	2.6 0 31 32 .5 0 .4 0 51 52 - 0 2.9 0	2.3 33 0 0 53 - 3.0 13 2.5	3.2 34 0 0 54 0 0 14 3.2	2.2 35 0 0 0 15 1.6	3.0 3.1 36 0 0	2.9 3.0 37 3.2 3.2 17 2.9	3.1 3.1 38 1.7 1.7	2.7 2.9 39 2.0 2.9	1.4 1.5 40 0 0
PLAY STOP Ref No. MODE PLAY STOP Ref No. MODE PLAY STOP Ref No. MODE PLAY STOP	21 1.6 1.5 41 0 0 1 3.2 3.2	2.7 22 0 0 42 - 3.0 2 2.3 2.7	3.2 23 0.2 0.1 43 3.2 3.2 3.2 3.2 3.2	2.3 2.6 24 0.2 0.1 44 - 3.0 4 2.3 2.6	2.8 25 - - 45 - 3.0 5 2.3 2.8	26 1.5 1.5 1.5 0 0 0	2.8 27 3.2 3.2 3.2 47 - 3.0 7 0 2.8	3.0 28 0 0 48 - 3.1 8 2.4 3.0	3.2 29 1.5 1.4 49 3.2 3.2 3.2 9 0 3.2	2.7	2.6 0 31 32 3.5 0 .4 0 51 52 - 0 2.9 0 11 12 2.2 0 3.6 0	2.3 33 0 0 53 - 3.0 13 2.5 2.3	3.2 34 0 0 54 0 0 14 3.2 3.2	2.2 35 0 0 15 1.6 3.1	3.0 3.1 36 0 0 0 16 3.0 3.0 3.6	2.9 3.0 37 3.2 3.2 3.2 17 2.9 3.0	3.1 3.1 38 1.7 1.7 1.7 3.1 3.1 3.1	2.7 2.9 39 2.0 2.9 19 2.7 2.9	1.4 1.5 40 0 0 0 20 1.4 1.5
PLAY STOP Ref No. MODE PLAY STOP Ref No. MODE PLAY STOP Ref No. MODE PLAY STOP Ref No.	21 1.6 1.5 41 0 0 1 3.2 3.2 3.2 21 1.6 1.5	2.7 22 0 0 42 - 3.0 2 2.3 2.7 22 0	3.2 23 0.2 0.1 43 3.2 3.2 3.2 3.2 3.2 0.1	2.3 2.6 24 0.2 0.1 44 - 3.0 4 2.3 2.6 24 0.2	2.8 25 - - 3.0 5 2.3 2.8 25 -	0 26 1.5 1.5 1.5 46 0 0 0 6 0 0 26 1.5	2.8 27 3.2 3.2 47 - 3.0 7 0 2.8 27 3.2 3.2	3.0 28 0 0 48 - 3.1 8 2.4 3.0 28 0	3.2 29 1.5 1.4 49 3.2 3.2 3.2 9 0 3.2 29 1.5 1.4	2.7 2 103051 30 1.7 1 1.5 1 103061 30 1.7 1 1 1.5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2.6 0 31 322 3.5 0 .4 0 51 522 - 0 2.9 0 11 122 2.2 0 2.6 0 31 323 32 32 32 32 33 32 34 0 35 5 50 0 36 5 50 0 50	2.3 33 0 0 53 - 3.0 13 2.5 2.3 33 0 0	3.2 34 0 0 0 54 0 0 14 3.2 3.2 3.2 3.4 0	2.2 35 0 0 15 1.6 3.1	3.0 3.1 36 0 0 0	2.9 3.0 37 3.2 3.2 3.2 17 2.9 3.0	3.1 3.1 38 1.7 1.7 1.7 3.1 3.1 3.1	2.7 2.9 39 2.0 2.9 19 2.7 2.9	1.4 1.5 40 0 0 0 20 1.4 1.5
PLAY STOP Ref No. MODE PLAY STOP Ref No. MODE PLAY STOP Ref No. MODE PLAY STOP	21 1.6 1.5 41 0 0 1 3.2 3.2 21 1.6	2.7 22 0 0 42 - 3.0 2 2.3 2.7	3.2 23 0.2 0.1 43 3.2 3.2 3.2 3.2 3.2 3.2	2.3 2.6 24 0.2 0.1 44 - 3.0 4 2.3 2.6	2.8 25 - - 3.0 5 2.3 2.8	0 26 1.5 1.5 46 0 0 0	2.8 27 3.2 3.2 47 - 3.0 7 0 2.8 27 3.2	3.0 28 0 0 48 - 3.1 8 2.4 3.0	3.2 29 1.5 1.4 49 3.2 3.2 3.2 9 0 3.2 29 1.5	2.7	2.6 0 31 322 3.5 0 .4 0 51 522 - 0 2.9 0 11 12 2.2 0 2.6 0 31 323 31 323 3.5 0	33 0 0 53 - 3.0 13 2.5 2.3 33 0	3.2 34 0 0 54 0 0 14 3.2 3.2 3.2	2.2 35 0 0 15 1.6 3.1	3.0 3.1 36 0 0 0	2.9 3.0 37 3.2 3.2 3.2 17 2.9 3.0	3.1 3.1 38 1.7 1.7 1.7 3.1 3.1 3.1	2.7 2.9 39 2.0 2.9 19 2.7 2.9	1.4 1.5 40 0 0 0 20 1.4 1.5
PLAY STOP Ref No. MODE PLAY STOP Ref No. MODE PLAY STOP Ref No. MODE PLAY STOP Ref No. MODE PLAY STOP	21 1.6 1.5 41 0 0 1 3.2 3.2 3.2 21 1.6 1.5	2.7 22 0 0 42 - 3.0 2 2.3 2.7 22 0 0	3.2 23 0.2 0.1 43 3.2 3.2 3.2 3.2 3.2 3.2 43 43 43 43	2.3 2.6 24 0.2 0.1 44 - 3.0 4 2.3 2.6 24 0.2	2.8 25 - - 3.0 5 2.3 2.8 25 - - - 45	0 26 1.5 1.5 1.5 46 0 0 6 0 0 0 26 1.5 1.5	2.8 27 3.2 3.2 47 - 3.0 7 0 2.8 27 3.2 47	3.0 28 0 0 3.1 8 2.4 3.0 28 0 0	3.2 29 1.5 1.4 49 3.2 3.2 9 0 3.2 29 1.5 1.4	2.7	2.6 0 31 32 32 55 0 .4 0 .5 1 52 .7 2 .9 0 .1 1 12 .2 0 .6 0 .4 0 .5 1 52 .6 0 .7 3 .6 0 .7 5	2.3 33 0 0 53 3.0 13 2.5 2.3 33 0 0	3.2 34 0 0 0 54 0 0 14 3.2 3.2 3.2 3.2 54	2.2 35 0 0 15 1.6 3.1	3.0 3.1 36 0 0 0	2.9 3.0 37 3.2 3.2 3.2 17 2.9 3.0	3.1 3.1 38 1.7 1.7 1.7 3.1 3.1 3.1	2.7 2.9 39 2.0 2.9 19 2.7 2.9	1.4 1.5 40 0 0 0 20 1.4 1.5
PLAY STOP Ref No. MODE PLAY STOP Ref No. RODE PLAY STOP Ref No. RODE PLAY STOP Ref No.	21 1.6 1.5 41 0 0 1 3.2 3.2 21 1.6 1.5	2.7 22 0 0 3.0 2 2.3 2.7 22 0 0 42 - 3.0	3.2 23 0.2 0.1 43 3.2 3.2 3.2 3.2 0.2 0.1 43 3.2 3.2 3.2 3.2 3.2 3.2 3.2 3.	2.3 2.6 24 0.2 0.1 44 - 3.0 4 2.3 2.6 24 0.2 0.1	2.8 25 3.0 5 2.3 2.8 25 3.0 45 - 3.0	0 26 1.5 1.5 1.5 46 0 0 0 26 1.5 1.5 46 0 0	2.8 27 3.2 3.2 3.0 47 - 3.0 2.8 27 3.2 3.2 47 - 3.2 3.2 47 3.2 3.2 47 3.2 3.0	3.0 28 0 0 3.1 8 2.4 3.0 28 0 0 48 - 3.1	3.2 29 1.5 1.4 49 3.2 3.2 3.2 9 0 3.2 29 1.5 1.4	2.7	2.6 0 31 32 32 55 0 .4 0 51 52 0 .2.9 0 11 12 2.2 0 .6.6 0 31 32 .5 0 .4 0 .5 1 52 .5 0 .4 0 .6 0 .7 0 .9 0 .9 0 .9 0 .9 0	2.3 33 0 0 53 - 3.0 2.5 2.3 33 0 0 53 - 3.0 0	3.2 34 0 0 0 54 0 0 14 3.2 3.2 3.2 3.2 54 0 0	2.2 35 0 0 15 1.6 3.1 35 0 0	3.0 3.1 36 0 0 0	2.9 3.0 37 3.2 3.2 3.2 17 2.9 3.0 37 3.2 3.2	3.1 3.1 38 1.7 1.7 1.7 18 3.1 3.1 3.1 1.7	2.7 2.9 39 2.0 2.9 19 2.7 2.9 39 2.0 2.9	1.4 1.5 40 0 0 0 1.4 1.5 40 0 0
PLAY STOP Ref No. MODE PLAY STOP Ref No. MODE PLAY STOP Ref No. MODE PLAY STOP Ref No. MODE PLAY STOP	21 1.6 1.5 41 0 0 1 3.2 3.2 21 1.6 1.5	2.7 22 0 0 3.0 2 2.3 2.7 22 0 0 42 - 3.0	3.2 23 0.2 0.1 43 3.2 3.2 3.2 3.2 3.2 0.2 0.1 43 3.2 3.2 3.2 3.2 3.2 3.2 3.2 3.	2.3 2.6 24 0.2 0.1 44 - 3.0 4 2.3 2.6 24 0.2 0.1	2.8 25 45 - 3.0 5 2.3 2.8 25 45	26 1.5 1.5 1.5 46 0 0 0 6 0 0 26 1.5 1.5	2.8 27 3.2 3.2 47 - 3.0 7 0 2.8 27 3.2 3.2 47 - - - - - - - - - - - - -	3.0 28 0 0 48 - 3.1 8 2.4 3.0 0 0	3.2 29 1.5 1.4 49 3.2 3.2 9 0 3.2 29 1.5 1.4	2.7 2 IC3051 30 3 1.7 1 1.5 1 1.5 2 1.5 2 1.6 3061 3.0 2 1.7 2 1.7 2 1.5 3.0 1 1.7 1 1.5 1 1.7 1 1.5 1 1.7 1 1.5 1 1.7 1 1.5 1 1.7 1 1.5 1 1.7 1 1.5 1 1.7 1 1.5 1 1.7 1 1.5 1 1.7 1 1.5 1 1.7 1 1.5 1 1.7 1	2.6 0 31 32 32 55 0 .4 0 .5 1 52 .7 2 .9 0 .1 1 12 .2 0 .6 0 .4 0 .5 1 52 .6 0 .7 3 .6 0 .7 5	2.3 33 0 0 53 - 3.0 13 2.5 2.3 0 0 53 - 3.0 13 3.0 13 3.0 13 13 13 13 10 10 10 10 10 10 10 10 10 10	3.2 34 0 0 0 54 0 0 14 3.2 3.2 3.2 3.2 0 0	2.2 35 0 0 15 1.6 3.1	3.0 3.1 36 0 0 0 16 3.0 3.0 3.0 0	2.9 3.0 37 3.2 3.2 3.2 17 2.9 3.0	3.1 3.1 38 1.7 1.7 1.7 3.1 3.1 3.1	2.7 2.9 39 2.0 2.9 19 2.7 2.9	1.4 1.5 40 0 0 0 20 1.4 1.5
PLAY STOP Ref No. MODE PLAY STOP	21 1.6 1.5 41 0 0 1 3.2 3.2 3.2 1.6 1.5	2.7 22 0 0 3.0 2 2.3 2.7 22 0 0 42 - 3.0	3.2 23 0.2 0.1 43 3.2 3.2 3.2 3.2 0.2 0.1 43 3.2 3.2 3.2 3.2 3.2 3.2 3.2 3.	2.3 2.6 24 0.2 0.1 44 - 3.0 4 2.3 2.6 24 0.2 0.1	2.8 25 3.0 5 2.3 2.8 25 3.0 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	0 26 1.5 1.5 46 0 0 0 6 0 1.5 1.5 46 0 0 0 0 46 0 0 0 0 0 0 1.5 1.5	2.8 27 3.2 3.2 3.2 47 - 3.0 7 0 2.8 27 3.2 3.2 47 - 3.0 7	3.0 28 0 0 3.1 8 2.4 3.0 28 0 0 0	3.2 29 1.5 1.4 49 3.2 3.2 3.2 9 0 3.2 29 1.5 1.4	2.7	2.6 0 31 32 32.5 0 .4 0 51 52 - 0 2.9 0 11 12 2.2 0 2.6 0 .4 0 15 1 52 - 0 .4 0 16 1 52 - 0 .9 0 11 1 12 12 10 14 0 15 1 52 16 1 52 17 1 52 18 1 32 18	2.3 33 0 0 0 53 - 3.0 13 2.5 2.3 0 0 53 - 3.0 13 2.4	3.2 34 0 0 0 54 0 0 14 3.2 3.2 3.2 3.2 54 0 0	2.2 35 0 0 15 1.6 3.1 35 0	3.0 3.1 36 0 0 0	2.9 3.0 37 3.2 3.2 3.2 17 2.9 3.0 37 3.2 3.2 3.2	3.1 3.1 38 1.7 1.7 1.7 1.7 1.8 3.1 3.1 3.1 1.7 1.7	2.7 2.9 39 2.0 2.9 19 2.7 2.9 39 2.0 2.9	1.4 1.5 40 0 0 1.4 1.5 40 0 0
PLAY STOP Ref No. MODE PLAY STOP Ref No. RODE PLAY STOP Ref No. RODE PLAY STOP Ref No. RODE PLAY STOP Ref No.	21 1.6 1.5 41 0 0 1 3.2 3.2 3.2 21 1.6 1.5 41 0 0 0	2.7 22 0 0 3.0 2 2.3 2.7 22 0 0 42 - 3.0 2 2.3 2.7	3.2 23 0.2 0.1 43 3.2 3.2 3.2 3.2 0.2 0.1 43 3.2 3.2 3.2 0.2 0.1	2.3 2.6 24 0.2 0.1 3.0 4 2.3 2.6 24 0.2 0.1 44 - 3.0 4 0.2	2.8 25 3.0 5 2.3 2.8 25 3.0 5 0 0	0 26 1.5 1.5 46 0 0 0 26 1.5 1.5 46 0 0 0	2.8 27 3.2 3.2 3.0 47 - 3.0 7 0 2.8 27 3.2 3.2 3.2 47 3.0 7	3.0 28 0 0 3.1 8 2.4 3.0 0 0 48 - 3.1 8 - 3.1 8 - 3.1 8 8 - 3.1 8 8 8 9 9 9 9 9 9 9 9 9 9 9 9 9	3.2 29 1.5 1.4 49 3.2 3.2 3.2 9 0 3.2 29 1.5 1.4 49 3.2 29 29 1.5 1.4	2.7	2.6 0 31 32 32 55 0 .4 0 51 52 - 0 .9 0 11 12 2.2 0 .6 0 31 32 55 0 .4 0 11 12 2.2 0 11 12 2.2 0 11 12 2.2 0 11 12 2.2 0 11 12 2.2 0 11 12 2.2 0	2.3 33 0 0 53 3.0 13 2.5 2.3 0 0 53 3.0 0 13 2.5 2.3 13 2.5 2.3	3.2 34 0 0 0 54 0 0 14 3.2 3.2 3.2 3.2 0 0 0	2.2 35 0 0 15 1.6 3.1 35 0 0	3.0 3.1 36 0 0 0 16 3.0 3.0 3.0 0	2.9 3.0 37 3.2 3.2 3.2 17 2.9 3.0 37 3.2 3.2 3.2	3.1 3.1 38 1.7 1.7 1.7 18 3.1 3.1 3.1 1.7 1.7	2.7 2.9 39 2.0 2.9 19 2.7 2.9 2.0 2.9	1.4 1.5 40 0 0 0 1.4 1.5 40 0 0 0
PLAY STOP Ref No. MODE	21 1.6 1.5 41 0 0 1 3.2 3.2 3.2 1.6 1.5 41 0 0 0 1 3.2 3.2 2 1.6 1.5	2.7 22 0 0 3.0 2 2.3 2.7 22 0 0 3.0 2 3.2 0 22 3.2 0	3.2 23 0.2 0.1 43 3.2 3.2 3.2 3.2 0.2 0.1 43 3.2 3.2 3.2 3.2 3.2 3.2 3.2 3.	2.3 2.6 24 0.2 0.1 44 - 3.0 4 2.3 2.6 24 0.2 0.1 44 - 3.0	2.8 25 3.0 5 2.3 2.8 25 3.0 5 0 0 0 25	26 1.5 1.5 1.5 46 0 0 0 0 26 1.5 1.5 1.5 0 0 0	2.8 27 3.2 3.2 3.0 7 0 2.8 27 3.0 7 0 7 3.2 3.2 3.2 3.2 47 - 3.0 7 27	3.0 28 0 0 0 48 - 3.1 8 2.4 3.0 0 0 48 - 3.1 8 28	3.2 29 1.5 1.4 49 3.2 3.2 3.2 9 0 3.2 1.5 1.4 49 3.2 3.2 3.2 29 1.5 1.4	2.7	2.6 0 31 32 55 0 .4 0 51 52 - 0 2.9 0 11 12 2.2 0 .5 0 .4 0 11 12 2.2 0 .6 0 11 55 0 0 11 12 12 0 13 1 32 14 0 15 1 52 - 0 16 0 17 1 12 18 1 12 18 1 13 18 1 32 18 1 33	2.3 33 0 0 0 53 - 3.0 13 2.5 2.3 33 0 0 53 - 3.0 13 2.4 2.4 33	3.2 34 0 0 0 54 0 0 14 3.2 3.2 3.2 3.2 34 0 0 0	2.2 35 0 0 0 15 1.6 3.1 35 0 0	3.0 3.1 36 0 0 0 3.0 3.0 3.0 0 0 0	2.9 3.0 37 3.2 3.2 3.2 17 2.9 3.0 37 3.2 3.2 3.2 3.2	3.1 3.1 3.1 38 1.7 1.7 1.7 1.7 1.7 1.7 1.7 1.7 1.7 1.7	2.7 2.9 39 2.0 2.9 19 2.7 2.9 39 2.0 2.9 19 0 0	1.4 1.5 40 0 0 1.4 1.5 40 0 0 0
PLAY STOP Ref No. MODE PLAY STOP Ref No. RODE PLAY STOP Ref No. RODE PLAY STOP Ref No. RODE PLAY STOP Ref No.	21 1.6 1.5 41 0 0 1 3.2 3.2 3.2 21 1.6 1.5 41 0 0 0	2.7 22 0 0 3.0 2 2.3 2.7 22 0 0 42 - 3.0 2 2.3 2.7	3.2 23 0.2 0.1 43 3.2 3.2 3.2 3.2 0.2 0.1 43 3.2 3.2 3.2 0.2 0.1	2.3 2.6 24 0.2 0.1 3.0 4 2.3 2.6 24 0.2 0.1 44 - 3.0 4 0.2	2.8 25 3.0 5 2.3 2.8 25 3.0 5 0 0	0 26 1.5 1.5 46 0 0 0 26 1.5 1.5 46 0 0 0	2.8 27 3.2 3.2 3.0 47 - 3.0 7 0 2.8 27 3.2 3.2 3.2 47 3.0 7	3.0 28 0 0 3.1 8 2.4 3.0 0 0 48 - 3.1 8 - 3.1 8 - 3.1 8 8 - 3.1 8 8 8 9 9 9 9 9 9 9 9 9 9 9 9 9	3.2 29 1.5 1.4 49 3.2 3.2 3.2 9 0 3.2 29 1.5 1.4 49 3.2 29 29 29 20 20 20 20 20 20 20 20 20 20	2.7	2.6 0 31 32 32 55 0 .4 0 51 52 - 0 .9 0 11 12 2.2 0 .4 0 11 12 2.2 0 .4 0 11 12 2.2 0 .4 0 11 12 2.2 0 .4 0 11 12 2.2 0 .4 0 .5 0 .4 0 .5 0 .4 0 .5 0 .5 0 .6 0 .7 0 .8 0 .8 0 .8 0 .9	2.3 33 0 0 0 53 - 3.0 13 2.5 2.3 33 0 0 53 - 3.0 13 2.4 2.4 33	3.2 34 0 0 0 54 0 0 14 3.2 3.2 3.2 3.2 0 0 0	2.2 35 0 0 15 1.6 3.1 35 0 0	3.0 3.1 36 0 0 0 16 3.0 3.0 3.0 0	2.9 3.0 37 3.2 3.2 3.2 17 2.9 3.0 37 3.2 3.2 3.2	3.1 3.1 38 1.7 1.7 1.7 18 3.1 3.1 3.1 1.7 1.7	2.7 2.9 39 2.0 2.9 19 2.7 2.9 2.0 2.9	1.4 1.5 40 0 0 0 1.4 1.5 40 0 0 0
PLAY STOP Ref No. MODE PLAY STOP Ref No.	21 1.6 1.5 41 0 0 1 3.2 3.2 3.2 1.6 1.5 41 0 0 0 1 3.2 3.2 21 1.6 0 0 0 0 0 0 0 0 0 0 0 0 0	2.7 22 0 0 3.0 2 2.3 2.7 22 0 0 42 - 3.0 2 2 3.0 0 2 42 - 0 0 0 0 0 0 0 0 0 0 0 0 0	3.2 23 0.2 0.1 43 3.2 3.2 3.2 3.2 0.2 0.1 43 3.2 3.2 0.2 0.1 43 3.2 3.2 0.2 0.1	2.3 2.6 24 0.2 0.1 44 - 3.0 4 2.3 2.6 0.2 0.1 44 - 3.0 24 4.9 4.9 4.9	2.8 25 3.0 5 2.3 2.8 25 3.0 5 0 0 0 25 0 0	26 1.5 1.5 1.5 46 0 0 0 0 26 1.5 1.5 1.5 0 0 0	2.8 27 3.2 3.2 3.0 7 0 2.8 27 3.0 7 0 2.8 27 3.2 3.2 3.2 47 - 3.0 7 0 0 0	3.0 28 0 0 0 48 - 3.1 8 2.4 3.0 0 0 48 - 3.1 28 0 0 0 48 - 3.1	3.2 29 1.5 1.4 49 3.2 3.2 3.2 9 0 3.2 1.5 1.4 49 3.2 3.2 29 1.5 1.4	2.7	2.6 0 31 32 32 55 0 .4 0 51 52 - 0 .9 0 11 12 2.2 0 .4 0 11 12 2.2 0 .4 0 11 12 2.2 0 .4 0 11 12 2.2 0 .4 0 11 12 2.2 0 .4 0 .5 0 .4 0 .5 0 .4 0 .5 0 .5 0 .6 0 .7 0 .8 0 .8 0 .8 0 .9	2.3 33 0 0 53 - 3.0 13 2.5 2.3 33 0 0 13 - 3.0 13 - 3.0 13 - 3.0 13 - 3.0 13 - 3.0 13 - 3.0 -	3.2 34 0 0 0 54 0 0 14 3.2 3.2 3.2 34 0 0 0 14 2.5 2.5	2.2 35 0 0 15 1.6 3.1 35 0 0 15 2.4 2.4 2.4 2.8	3.0 3.1 36 0 0 0 16 3.0 3.0 3.0 0 0 0	2.9 3.0 37 3.2 3.2 3.2 17 2.9 3.0 37 3.2 3.2 17 0 0	3.1 3.1 38 1.7 1.7 1.7 18 3.1 3.1 3.1 3.1 1.7 1.7	2.7 2.9 39 2.0 2.9 19 2.7 2.9 2.9 2.0 2.9 2.0 0 0	1.4 1.5 40 0 0 1.4 1.5 40 0 0 20 2.4 2.4 2.4 40 1.6
PLAY STOP Ref No. MODE	21 1.6 1.5 41 0 0 1 3.2 3.2 21 1.6 1.5 41 0 0 0 1 3.2 3.2 21 1.6 0 0 0 0 0 0 0 0 0 0 0 0 0	2.7 22 0 0 3.0 42 - 3.0 2 2.3 2.7 22 0 0 3.0 42 - 3.0 42 - 3.0 42 - 44 - 42 4.9 4.9	3.2 23 0.2 0.1 43 3.2 3.2 3.2 3.2 0.2 0.1 43 3.2 0.2 0.1 43 3.2 0.2 0.1 43 3.2 3.2 0.0 0 0 43 43 43	2.3 2.6 24 0.2 0.1 44 - 3.0 4 2.3 2.6 0.2 0.1 4 4 0.2 0.1 4 4 0.2 0.1 4 4 0.2 0.1 4 0.2 0.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0	2.8 25 3.0 5 2.3 2.8 25 3.0 5 0 0 0 45 45 45 - 3.0	26 1.5 1.5 1.5 46 0 0 0 0 26 1.5 1.5 1.5 0 0 0 0 0 26 4.9 4.9	2.8 27 3.2 3.2 3.0 7 0 2.8 27 3.0 7 0 2.8 27 3.2 3.2 3.7 0 0 0	3.0 28 0 0 0 48 - 3.1 8 2.4 3.0 0 0 48 - 3.1 8 - 3.1 8 - 48 - 4.9 4.9	3.2 29 1.5 1.4 49 3.2 3.2 3.2 9 0 3.2 1.5 1.4 49 3.2 3.2 29 1.5 1.4	2.7	2.6 0 31 32 32 55 0 .4 0 51 52 - 0 .9 0 11 12 2.2 0 .4 0 11 12 2.2 0 .4 0 11 12 2.2 0 .4 0 11 12 2.2 0 .4 0 11 12 2.2 0 .4 0 .5 0 .4 0 .5 0 .4 0 .5 0 .5 0 .6 0 .7 0 .8 0 .8 0 .8 0 .9	2.3 33 0 0 53 - 3.0 13 2.5 2.3 33 0 0 13 - 3.0 13 - 3.0 13 - 3.0 13 - 3.0 13 - 3.0 13 - 3.0 -	3.2 34 0 0 0 54 0 0 14 3.2 3.2 3.2 34 0 0 0 14 2.5 2.5	2.2 35 0 0 15 1.6 3.1 35 0 0 15 2.4 2.4 2.4 2.8	3.0 3.1 36 0 0 0 16 3.0 3.0 3.0 0 0 0	2.9 3.0 37 3.2 3.2 3.2 17 2.9 3.0 37 3.2 3.2 17 0 0	3.1 3.1 38 1.7 1.7 1.7 18 3.1 3.1 3.1 3.1 1.7 1.7	2.7 2.9 39 2.0 2.9 19 2.7 2.9 2.9 2.0 2.9 2.0 0 0	1.4 1.5 40 0 0 1.4 1.5 40 0 0 20 2.4 2.4 2.4 40 1.6
PLAY STOP Ref No. MODE PLAY STOP Ref No.	21 1.6 1.5 41 0 0 1 3.2 3.2 3.2 1.6 1.5 41 0 0 0 1 3.2 3.2 21 1.6 0 0 0 0 0 0 0 0 0 0 0 0 0	2.7 22 0 0 3.0 2 2.3 2.7 22 0 0 42 - 3.0 2 2 3.0 0 2 42 - 0 0 0 0 0 0 0 0 0 0 0 0 0	3.2 23 0.2 0.1 43 3.2 3.2 3.2 3.2 0.2 0.1 43 3.2 3.2 0.2 0.1 43 3.2 3.2 0.2 0.1	2.3 2.6 24 0.2 0.1 44 - 3.0 4 2.3 2.6 0.2 0.1 44 - 3.0 24 4.9 4.9 4.9	2.8 25 3.0 5 2.3 2.8 25 3.0 5 0 0 0 25 0 0	26 1.5 1.5 1.5 46 0 0 0 0 26 1.5 1.5 1.5 0 0 0	2.8 27 3.2 3.2 3.2 47 - 3.0 7 0 2.8 27 3.2 3.2 3.2 47 - 3.0 7 27 0 0	3.0 28 0 0 0 48 - 3.1 8 2.4 3.0 0 0 48 - 3.1 28 0 0 0 48 - 3.1	3.2 29 1.5 1.4 49 3.2 3.2 3.2 9 0 3.2 1.5 1.4 49 3.2 3.2 29 1.5 1.4	2.7	2.6 0 31 32 32 55 0 .4 0 51 52 - 0 .9 0 11 12 2.2 0 .4 0 11 12 2.2 0 .4 0 11 12 2.2 0 .4 0 11 12 2.2 0 .4 0 11 12 2.2 0 .4 0 .5 0 .4 0 .5 0 .4 0 .5 0 .5 0 .6 0 .7 0 .8 0 .8 0 .8 0 .9	2.3 33 0 0 53 - 3.0 13 2.5 2.3 33 0 0 13 - 3.0 13 - 3.0 13 - 3.0 13 - 3.0 13 - 3.0 13 - 3.0 -	3.2 34 0 0 0 54 0 0 14 3.2 3.2 3.2 34 0 0 0 14 2.5 2.5	2.2 35 0 0 15 1.6 3.1 35 0 0 15 2.4 2.4 2.4 2.8	3.0 3.1 36 0 0 0 16 3.0 3.0 3.0 0 0 0	2.9 3.0 37 3.2 3.2 3.2 17 2.9 3.0 37 3.2 3.2 17 0 0	3.1 3.1 38 1.7 1.7 1.7 18 3.1 3.1 3.1 3.1 1.7 1.7	2.7 2.9 39 2.0 2.9 19 2.7 2.9 2.9 2.0 2.9 2.0 0 0	1.4 1.5 40 0 0 1.4 1.5 40 0 0 20 2.4 2.4 2.4 40 1.6
PLAY STOP Ref No. MODE PLAY STOP Ref No.	21 1.6 1.5 41 0 0 1 3.2 3.2 1.6 1.5 41 0 0 0 1 3.2 3.2 0 0 0 1 1.5 1.5	2.7 22 0 0 3.0 2 2.3 2.7 22 0 0 0 42 - 3.0 2 2.3 2.7 22 42 0 0 22 4.9 4.9 4.9 42 0 0	3.2 23 0.2 0.1 43 3.2 3.2 3.2 3.2 0.2 0.1 43 3.2 3.2 3.2 0.0 0 0 0 0 0 0 0 0 0 0 0 0 0	2.3 2.6 24 0.2 0.1 44 - 3.0 4 2.3 2.6 24 0.2 0.1 44 - 3.0	2.8 25 3.0 5 2.3 2.8 25 3.0 5 0 0 0 45 1.2	0 26 1.5 1.5 1.5 46 0 0 0 26 1.5 1.5 46 0 0 0 26 1.5 1.5 46 0 0 0 0 1.5 1.5	2.8 27 3.2 3.2 3.0 7 0 2.8 27 3.0 7 0 2.8 27 3.2 3.2 3.2 3.2 47 - 0 0 0 47 0 0	3.0 28 0 0 0 48 - 3.1 8 2.4 3.0 0 0 48 - 3.1 28 0 0 0 48 - 3.1 8	3.2 29 1.5 1.4 49 3.2 3.2 3.2 9 0 3.2 29 1.5 1.4 49 3.2 29 2.4 2.4 2.4 2.4 2.5 2.6 2.6 2.6 2.6 2.7 2.7 2.7 2.7 2.7 2.7 2.7 2.7	2.7	2.6 0 31 32 3.5 0 .4 0 51 52 - 0 .9 0 11 12 2.2 0 .6 0 31 32 .5 0 .4 0 11 12 2.2 0 .6 0 11 12 2.2 0 .6 0 11 12 2.2 0 .6 0 11 12 2.2 0 .6 0 11 32 32 3.5 0 31 32 32 3.5 0 0 0 0	2.3 33 0 0 53 - 3.0 13 2.5 2.3 33 0 0 13 - 3.0 13 - 3.0 13 - 3.0 13 - 3.0 13 - 3.0 13 - 3.0 -	3.2 34 0 0 0 54 0 0 14 3.2 3.2 3.2 34 0 0 0 14 2.5 2.5	2.2 35 0 0 15 1.6 3.1 35 0 0 15 2.4 2.4 2.4 2.8	3.0 3.1 36 0 0 0 16 3.0 3.0 3.0 0 0 0	2.9 3.0 37 3.2 3.2 3.2 17 2.9 3.0 37 3.2 3.2 17 0 0	3.1 3.1 38 1.7 1.7 1.7 18 3.1 3.1 3.1 3.1 1.7 1.7	2.7 2.9 39 2.0 2.9 19 2.7 2.9 2.9 2.0 2.9 2.0 0 0	1.4 1.5 40 0 0 1.4 1.5 40 0 0 20 2.4 2.4 2.4 40 1.6
PLAY STOP Ref No. MODE PLAY	21 1.6 1.5 41 0 0 1 3.2 3.2 21 1.6 1.5 41 0 0 0 1 3.2 3.2 21 1.6 1.5 41 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1	2.7 22 0 0 3.0 2 2.3 2.7 22 0 0 42 - 3.0 2 42 - 3.0 2 42 - 42 - 42 0 0 0 0 0 0 0 0 0 0 0 0 0	3.2 0.2 0.1 43 3.2 3.2 3.2 3.2 0.1 43 3.2 3.2 0.1 43 3.2 3.2 0.1 43 3.2 3.2 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	2.3 2.6 24 0.2 0.1 44 - 3.0 4 2.3 2.6 24 0.2 0.1 44 - 3.0 2.3 2.6 24 0.2 0.1 44 - 3.0 0.2 0.1 44 - 44 0.2 0.2 0.1 0.2 0.2 0.3 0.2 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3	2.8 25 3.0 5 2.3 2.8 25 3.0 5 0 0 0 45 1.2 0	0 26 1.5 1.5 1.5 46 0 0 0 26 1.5 1.5 46 0 0 0 26 1.5 1.5 46 0 0 0 0 1.5 1.5	2.8 27 3.2 3.2 3.0 7 0 2.8 27 3.0 7 0 2.8 27 3.2 3.2 3.2 3.2 47 - 0 0 0 47 0 0 1	3.0 28 0 0 0 48 - 3.1 8 2.4 3.0 0 0 48 - 3.1 8 - 3.1 8 - 4.9 4.9 4.9 48 3.2 0	3.2 29 1.5 1.4 49 3.2 3.2 9 0 3.2 29 1.5 1.4 49 29 1.5 1.4 49 3.2 3.2 1.5 1.4 1.6 1.6 1.6 1.6 1.6 1.6 1.6	2.7	2.6 0 31 32 3.5 0 .4 0 51 52 - 0 2.9 0 11 12 2.2 0 2.6 0 31 32 32 3.5 0 .4 0 11 12 2.2 0 31 32 32 3.2 0 11 12 32 3.2 0 55 0 60 0	2.3 33 0 0 53 - 3.0 13 2.5 2.3 33 0 0 13 - 3.0 13 - 3.0 13 - 3.0 13 - 3.0 13 - 3.0 13 - 3.0 -	3.2 34 0 0 0 54 0 0 14 3.2 3.2 3.2 34 0 0 0 14 2.5 2.5	2.2 35 0 0 15 1.6 3.1 35 0 0 15 2.4 2.4 2.4 2.8	3.0 3.1 36 0 0 0 16 3.0 3.0 3.0 0 0 0	2.9 3.0 37 3.2 3.2 3.2 17 2.9 3.0 37 3.2 3.2 17 0 0	3.1 3.1 38 1.7 1.7 1.7 18 3.1 3.1 3.1 3.1 1.7 1.7	2.7 2.9 39 2.0 2.9 19 2.7 2.9 2.9 2.0 2.9 2.0 0 0	1.4 1.5 40 0 0 1.4 1.5 40 0 0 20 2.4 2.4 2.4 40 1.6
PLAY STOP Ref No. MODE PLAY STOP Ref No.	21 1.6 1.5 41 0 0 1 3.2 3.2 1.6 1.5 41 0 0 0 1 3.2 3.2 0 0 0 1 1.5 1.5	2.7 22 0 0 3.0 2 2.3 2.7 22 0 0 0 42 - 3.0 2 2.3 2.7 22 42 0 0 22 4.9 4.9 4.9 42 0 0	3.2 23 0.2 0.1 43 3.2 3.2 3.2 3.2 0.2 0.1 43 3.2 3.2 3.2 0.0 0 0 0 0 0 0 0 0 0 0 0 0 0	2.3 2.6 24 0.2 0.1 44 - 3.0 4 2.3 2.6 24 0.2 0.1 44 - 3.0	2.8 25 3.0 5 2.3 2.8 25 3.0 5 0 0 0 45 1.2	0 26 1.5 1.5 1.5 46 0 0 0 26 1.5 1.5 46 0 0 0 26 1.5 1.5 46 0 0 0 0 1.5 1.5	2.8 27 3.2 3.2 3.0 7 0 2.8 27 3.0 7 0 2.8 27 3.2 3.2 3.2 3.2 47 - 0 0 0 47 0 0	3.0 28 0 0 0 48 - 3.1 8 2.4 3.0 0 0 48 - 3.1 28 0 0 0 48 - 3.1 8	3.2 29 1.5 1.4 49 3.2 3.2 3.2 9 0 3.2 29 1.5 1.4 49 3.2 29 2.4 2.4 2.4 2.4 2.5 2.6 2.6 2.6 2.6 2.7 2.7 2.7 2.7 2.7 2.7 2.7 2.7	2.7	2.6 0 31 32 3.5 0 .4 0 51 52 - 0 .9 0 11 12 2.2 0 .6 0 31 32 .5 0 .4 0 11 12 2.2 0 .6 0 11 12 2.2 0 .6 0 11 12 2.2 0 .6 0 11 12 2.2 0 .6 0 11 32 32 3.5 0 31 32 32 3.5 0 0 0 0	2.3 33 0 0 53 - 3.0 13 2.5 2.3 33 0 0 13 - 3.0 13 - 3.0 13 - 3.0 13 - 3.0 13 - 3.0 13 - 3.0 -	3.2 34 0 0 0 54 0 0 14 3.2 3.2 3.2 34 0 0 0 14 2.5 2.5 34 3.2	2.2 35 0 0 15 1.6 3.1 35 0 0 15 2.4 2.4 2.4 2.8	3.0 3.1 36 0 0 0 16 3.0 3.0 3.0 0 0 0	2.9 3.0 37 3.2 3.2 3.2 17 2.9 3.0 37 3.2 3.2 17 0 0	3.1 3.1 38 1.7 1.7 1.7 18 3.1 3.1 3.1 3.1 1.7 1.7	2.7 2.9 39 2.0 2.9 19 2.7 2.9 2.9 2.0 2.9 2.0 0 0	1.4 1.5 40 0 0 1.4 1.5 40 0 0 20 2.4 2.4 2.4 40 1.6

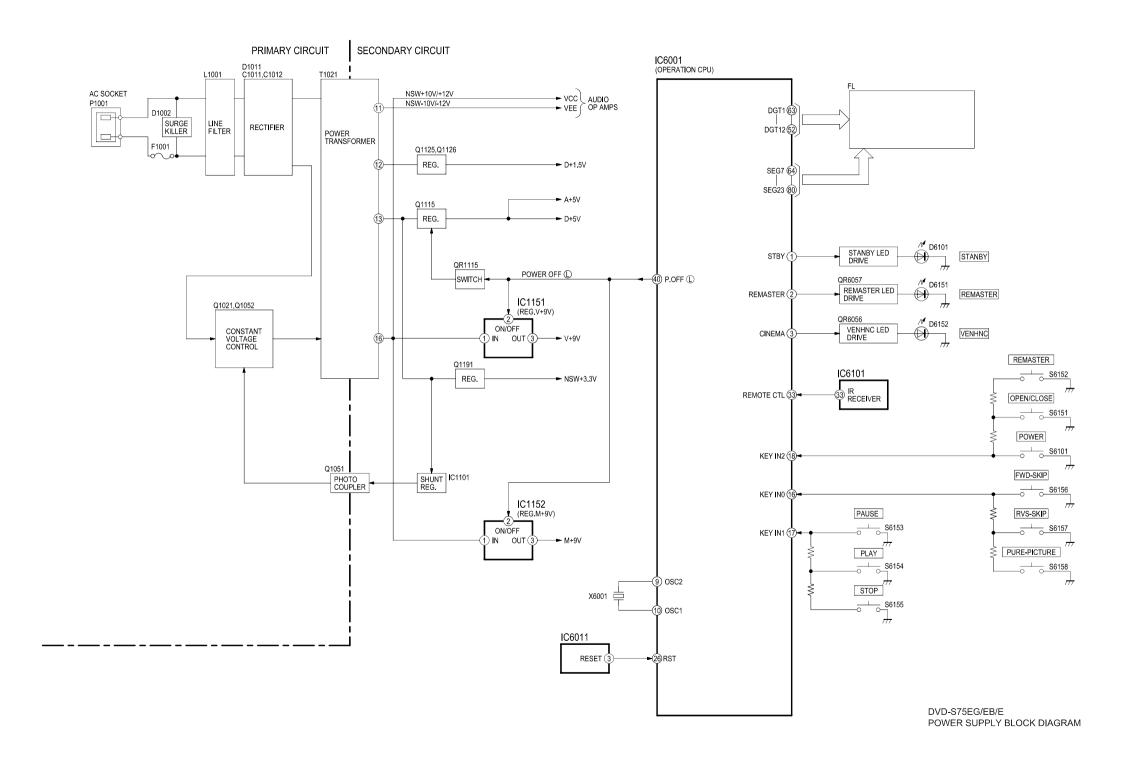
Ref No.										IC6	301									
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
PLAY	1.0	1.8	1.1	1.0	1.5	1.4	1.7	1.5	0.3	0	3.2	3.0		3.2	0.4	0.1	0.1	1.1	1.8	1.3
STOP	1.1	1.4	0.4	0.3	0.7	0.8	1.6	0.8	0.9	0	3.2	3.0		3.2	0.5	0.1	0.1	0.8	1.8	0.7
Ref No.										IC6	301									
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
PLAY	1.4	1.7	1.6	1.8	2.0	3.2	0	1.8	-	-	-					-	0		-	-
STOP	1.1	1.8	1.8	1.3	2.7	3.2	0	3.2	3.2	0	3.2	0	3.2	0	0	0	3.2	3.2	0	0
Ref No.										IC6	301									
MODE	41	42	43	44	45	46	47	48												
PLAY	-	-	-	-	-	0	3.2	0.8												
STOP	0	3.2	0	3.2	0	0	3.2	0												
Ref No.																				
MODE	1	2	3	4	5	6	7	8	9	10	11		13	14	15	16		18	19	20
PLAY	0	-	-	-	-	-	-	-	-	0	-	2.0	1.7	1.6	1.7	1.5	1.3	1.8	1.1	3.2
STOP	0	0.1	0.6	0.3	0.1	0.1	0.1	0.1	0	0	3.2	0	3.2	3.2	0	3.2	3.2	0	3.2	3.2
Ref No.											312									
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
PLAY	0	-	-	-	-	-	-	-	-	0	-	2.0	1.7	1.6	1.7	1.5	1.3	1.8	1.1	3.2
STOP	0	0	0	0	0	0	3.2	3.2	3.2	0	0	3.2	3.2	3.2	0	0	0	0	0	3.2
Ref No.					351															
MODE	1	2	3	4	5	6	7	8												lacksquare
PLAY	0	0	0	0	3.2	3.2	0	3.2												lacksquare
STOP	0	0	0	0	3.2	3.2	0	3.2	504											
Ref No.			_				7	IC6		40						- 40				
MODE	7	2	3	4	5	6	- 1	8	9	10	11	12	13	14	15	16				-
PLAY STOP	3.2	0	1.5 0	1.4	3.2	0	1.4	1.5	1.3	1.6	0	3.2	1.4	3.2	0	3.2				-
	3.2	U	U	1.4	3.2	0	1.4	1.5	1.3	1.6	0	3.2	1.4	3.2	1.5	3.2				
Ref No.					ī									1		1	1			-
MODE PLAY																				-
STOP																				-
Ref No.		Q5211		1		Q5221				Q5225		1								
MODE	1	2	3	1	1	2	3		1	2	3	1		1	ı					
PLAY	3.3	0	0.1	1	0	3.2	3.2		0.2	5.0	0	1							1	
		_	0.1		3.2															
STOP	5.0	0.2	U		3.2	0.2	3.2		0.2	5.0	0									

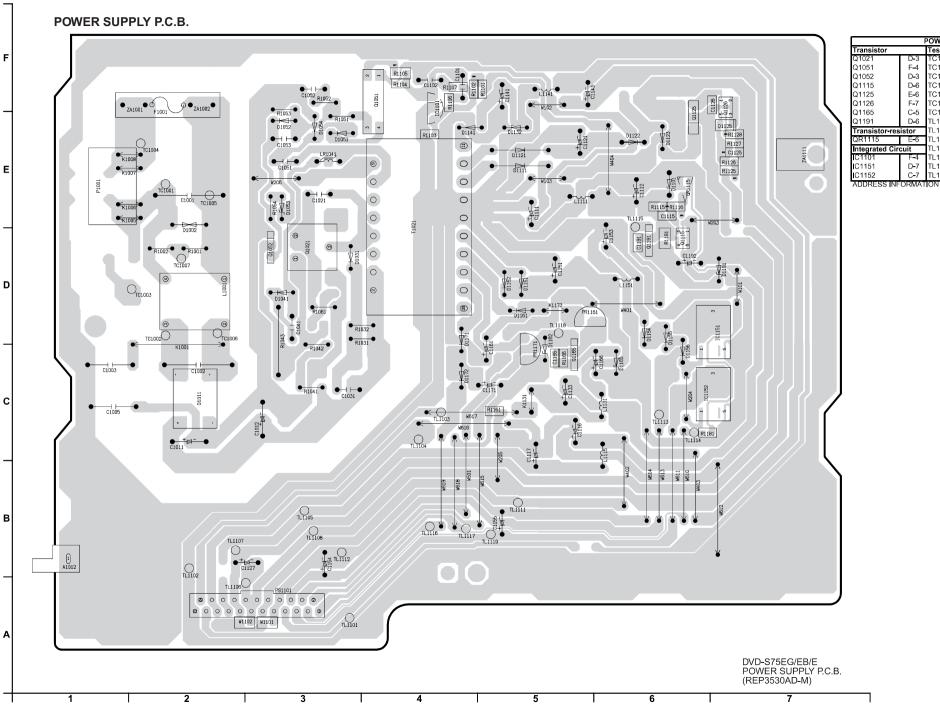


Ref No.										IC3	501									1
MODE	1	2	3	4	5 2.7	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
PLAY STOP	2.0	5.0 5.0	2.7	0	2.7	5.0 5.0	0	2.6	0	1.9 1.7	5.0 5.0	2.8	0	2.8	4.9	2.2	2.3	-	2.3	0
Ref No.										_	501									
MODE PLAY	21	22	23 0	24	25 2.1	26 0	27	28 0	29 2.2	30 2.1	31 0	32 2.3								
STOP	1.6	1.6	0	1.7	1.6	0	1.8	0	1.6	1.6	0	2.3								
Ref No.				3502	-	•			IC3581			4	_			301	_		•	
MODE PLAY	0	1.7	5.0	2.5	5 0	6 2.5		9.0	0	3 5.1		1 2.5	2.5	2.5	-6.7	5 2.5	6 2.5	7 2.6	8 11.6	
STOP	0	1.5	5.0	2.2	0	2.2		9.0	0	5.1		2.5	2.5	2.5	-6.5	2.4	2.5	2.6	11.5	
Ref No. MODE	1	2	3	IC ²	1302 5	6	7	8		1	2	3	IC4	303 5	6	7	8			-
PLAY	2.5	2.5	2.5	-6.7	2.5	2.5	2.6	11.6		2.5	2.5	2.5	-6.7	2.5	2.5	2.6	11.6			
STOP	2.5	2.5	2.5	-6.5	2.5 1304	2.5	2.6	11.5		2.5	2.5	2.5	-6.5	2.5	2.5	2.6	11.5			
Ref No. MODE	1	2	3	4	5	6	7	8		1	IC4305 2	3								
PLAY	2.6	2.5	2.5	-6.7	2.5	2.5	2.5	11.6		5.0	0	11.6								
STOP Ref No.	2.6	2.5	2.5	-6.5	2.5	2.5	2.5	11.5		5.0 IC6	0 001	11.5								<u> </u>
MODE MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
PLAY	3.2	3.3	3.3	1.0	2.7	2.9	0	3.3	1.5	1.6	0	0	3.3	0	0	3.3	3.3	3.3	3.3	3.3
STOP Ref No.	3.2	3.3	3.3	1.0	2.7	2.9	0	3.3	1.5	1.6 IC6	0 001	0	3.3	0	0	3.3	3.3	3.3	3.3	3.3
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
PLAY STOP	0	0 1.5	0.7	3.3	0	3.3	1.6 1.6	0 1.6	3.2	3.3	3.2	3.3	3.2 2.9	3.3	0	3.3	3.3	0	0	3.0
Ref No.	U	1.5	U./	3.3	U	ა.ა	1.0	1.0	J.Z		001	ა.ა	2.9	ა.ა	U	ა.ა	3.2	U	U	3.0
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
PLAY STOP	0	3.3	3.3	3.3	3.3	3.3	3.2	3.2	3.2	3.0	-23.8 -23.1	-22.2 -21.5	-22.2 -21.5	-22.2 -21.5	-21.9 -21.2	-21.9 -21.2	-21.9 -21.2	-21.9 -21.2	-21.9 -21.2	-21.9 -21.2
Ref No.						0.0			0.0	IC6	001									
MODE PLAY	61 -21.9	62 -21.9	63 -21.9	-19.2	65 -12.5	-23.8	-23.8	-23.8	-12.4	70 -12.4	71 -12.5	72 -14.8	73 -15.2	74 -8.4	75 0	76 0	77 0	78 -10.7	79 -19.7	-24.1
STOP	-21.9	-21.9	-21.9	-21.2	-12.5	-23.1	-20.9	-23.1	-12.4	-18.6	-12.5	-14.6	-16.9	-19.1	-21.3	-21.3	-21.3	-14.7	-23.5	-23.5
Ref No.	0.4			0.4	0.5	00	0.7	00			001			0.4	0.5	00			00	400
MODE PLAY	81 3.3	82 3.3	83 0	84 3.3	85 3.3	86 3.3	87 3.3	3.3	89 3.3	90	91 0	92 0	93	94	95 0	96 0	97 0	98 3.2	99 3.2	100 -24.4
STOP	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	0	3.2	0	-0.7	-0.7	-0.6	-0.6	3.2	3.3	-23.6
Ref No. MODE	1	1C6	011 3	4																
PLAY	-	0	3.3	3.3																
STOP	-	0	3.3	3.3																
Ref No. MODE		T .	ī	I	T							Г								1
PLAY																				
STOP Ref No.		Q3501				Q4302				Q4410				Q4413				Q4414		
MODE	1	2	3		1	2	3		1	2	3		1	2	3		1	2	3	
PLAY	0	1.0	0.4		2.7	0	0		0	0	-5.5		0	0	-5.5		0	0	-5.5	
STOP Ref No.	0	1.1 Q4415	0.5		0	0 Q4416	0		0	0 Q4417	0.7		0	0 Q4418	0.7		0	0 Q4419	0.7	
MODE	1	2	3		1	2	3		1	2	3		1	2	3		1	2	3	
PLAY STOP	0	0	-5.5 0.7	-	0	0	-5.5 0.7		0	0	-5.5 0.7		0	0	-5.5 0.7		0	0	-5.5 0.7	\vdash
Ref No.		Q4751	0.1			Q4901	0.1		J	Q4911	0.7		J	Q4921	0.7			Q6095	0.1	
MODE	1	2	3		1	2	3		1	2	3		1	2	3		1	2	3	
PLAY STOP	5.0 5.1	1.8	1.6 2.5		11.6 11.5	12.3 12.2	12.2 12.1		-6.7 -6.5	-7.4 -7.2	-7.3 -7.2		12.3 12.2	12.3 12.2	12.3 12.2		-16.5 -15.8	-16.4 -15.8	-15.7 -15.1	
Ref No.																				
MODE PLAY		-	-	}	-															\vdash
STOP																				
Ref No.	_	QR3502			4	QR3503				QR3521	_		_	QR3522			_	QR4301	•	
MODE PLAY	2.8	0	0		2.8	0	3 0		0.1	0	3.2		0	0	0.3		2.7	0	0.1	
STOP	2.8	0	0		2.8	0	0		0.1	0	3.2		0	1.1	0.4		0	0	3.2	
Ref No. MODE	4			4302	-	6		4	2		1901	F	6		4	2		4902 4	F	6
PLAY	0.1	0	0.1	-5.5	5 2.7	6		0.1	0.1	3 12.3	12.3	3.0	6		-7.4	0	3 12.3	12.3	5 12.3	-7.4
STOP	1.9	0	1.9	1.4	0	0		0	0	12.2	12.2	3.0	0		-7.2	0	12.2	12.2	12.2	-7.2
Ref No. MODE	1	QR6052	3	-	1	QR6056 2	3		1	QR6057 2	3	<u> </u>								-
PLAY	-0.2	3.3	3.3		-0.1	3.3	3.3		-0.1	3.3	3.3									
STOP	-0.2	3.3	3.3		-0.1	3.3	3.3		-0.1	3.3	3.3									

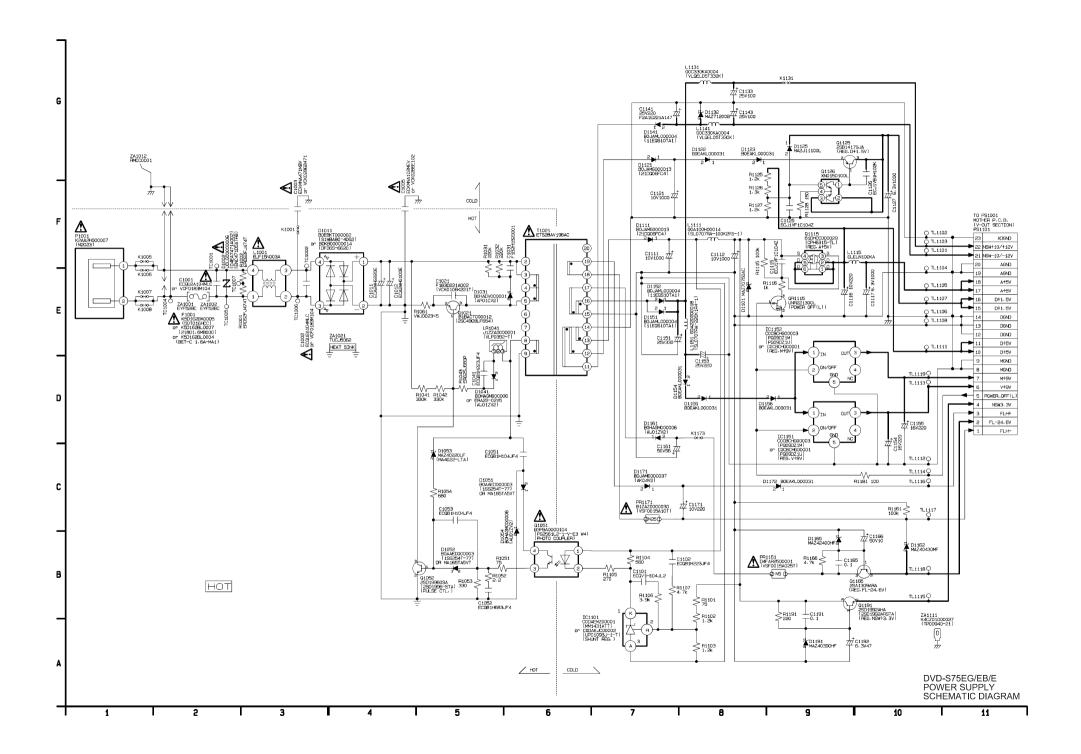




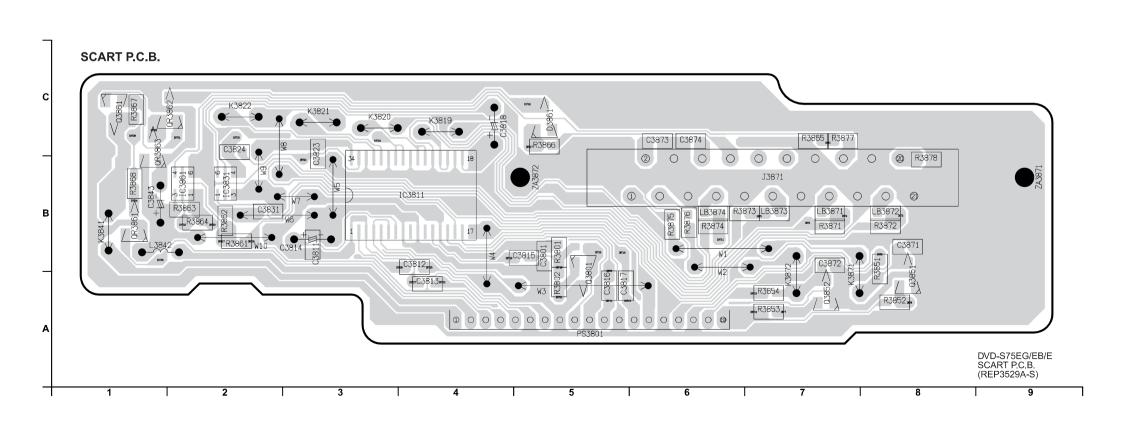




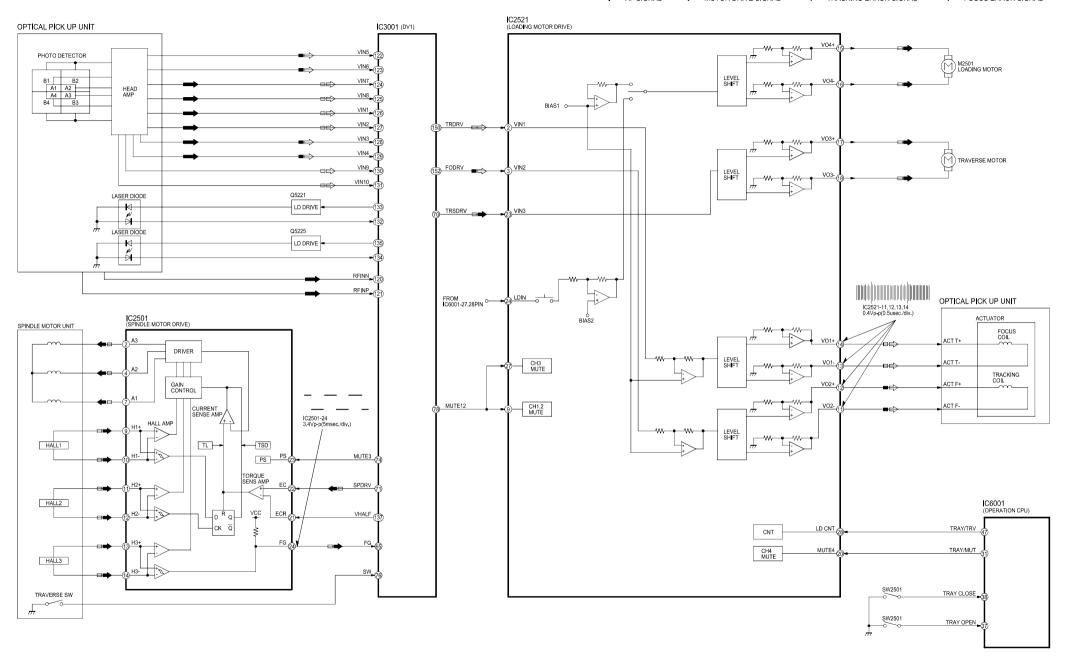
		POWER SUPPL	Y P.C.E	3.	
Transistor		Test Point		TL1108	B-3
Q1021	D-3	TC1001	E-2	TL1111	B-5
Q1051	F-4	TC1002	D-2	TL1112	B-3
Q1052	D-3	TC1003	D-2	TL1113	C-6
Q1115	D-6	TC1004	E-2	TL1114	C-6
Q1125	E-6	TC1005	E-2	TL1115	D-6
Q1126	F-7	TC1006	D-2	TL1116	B-4
Q1165	C-5	TC1007	D-2	TL1117	B-4
Q1191	D-6	TL1101	A-3	TL1118	D-5
Transistor-re	sistor	TL1102	A-2	TL1119	B-5
QR1115	E-6	TL1103	C-4	Connector	
Integrated Ci	rcuit	TL1104	C-4	P1001	E-1
IC1101	F-4	TL1105	B-3	PS1101	A-3
IC1151	D-7	TL1106	A-3	Transformer	
IC1152	C-7	TL1107	B-2	T1021	D-4

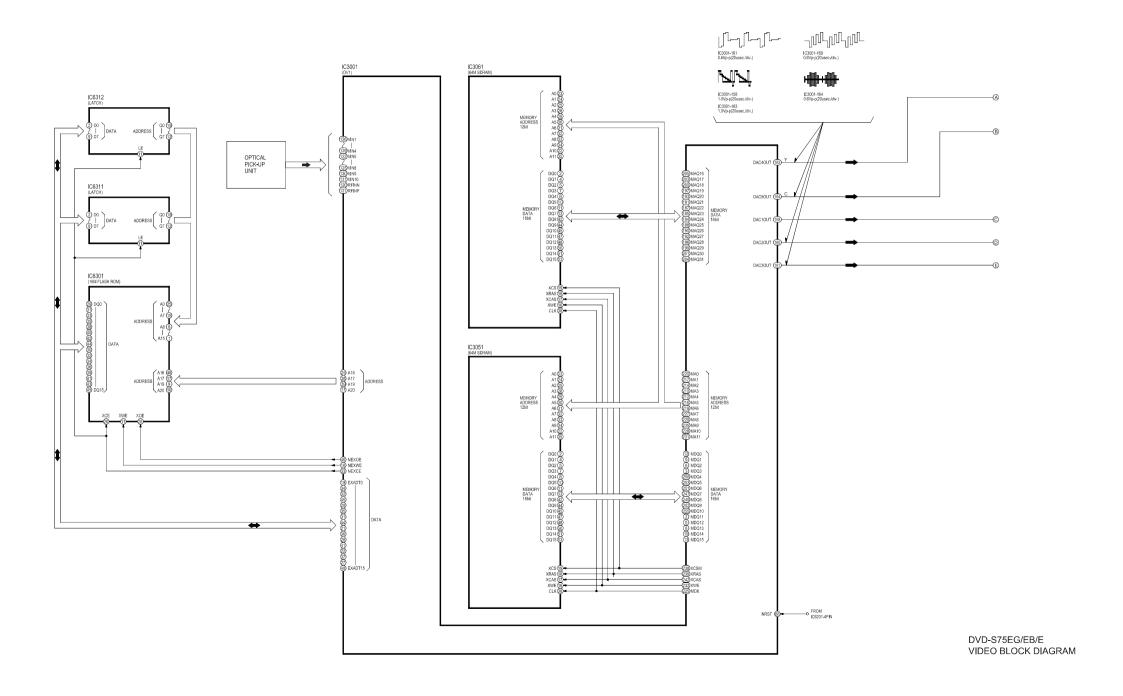


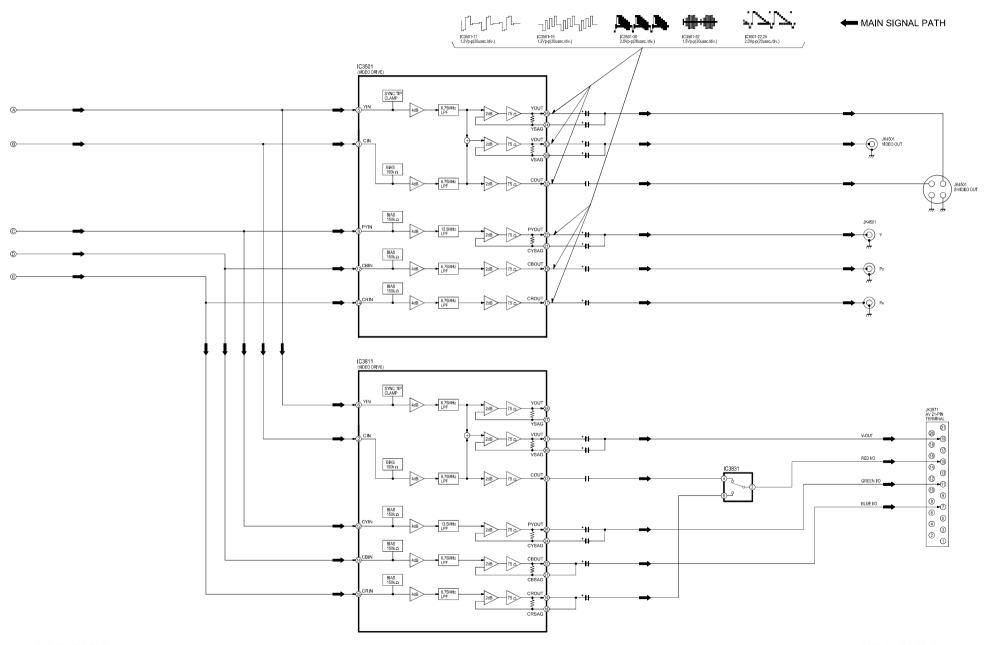
Ref No.		IC1101					IC1151						IC1152							
MODE	1	2	3		1	2	3	4	5		1	2	3	4	5					
PLAY	3.6	2.5	0		10.1	3.0	9.1	0	0		10.1	3.0	9.0	0	0					
STOP	3.5	2.5	0		10.1	3.0	9.1	0	0		10.1	3.0	9.0	0	0					
Ref No.																				
MODE																				
PLAY																				
STOP																				
Ref No.	Q1021 Q1051									Q1052					Q1	115				
MODE	1	2	3		1	2	3	4		1	2	3		1	2	3	4	5	6	
PLAY	0.3	0	741		5.2	4.1	0.1	1.8		0.2	0	0.3		5.1	5.1	0	5.1	5.1	5.1	
STOP	0.3	0	772		5.2	4.1	0.1	1.7		0.1	0	0.2		5.1	5.1	0	5.1	5.1	5.1	
Ref No.		Q1125					Q1126					Q1165				Q1191				
MODE	1	2	3		1	2	3	4	5		1	2	3		1	2	3			
PLAY	2.2	1.6	1.4		1.4	1.6	1.6	1.0	1.6		-24.4	-25.3	-25.0		3.3	5.1	4.0			
STOP	2.2	1.6	1.4		1.4	1.6	1.6	1.0	1.6		-24.4	-24.6	-24.6		3.3	5.1	4.0			
Ref No.																				
MODE																				
PLAY																				
STOP																				
Ref No.		QR1115																		
MODE	1	2	3																	
PLAY	0	0	3.0																	
STOP	0	0	3.0																	

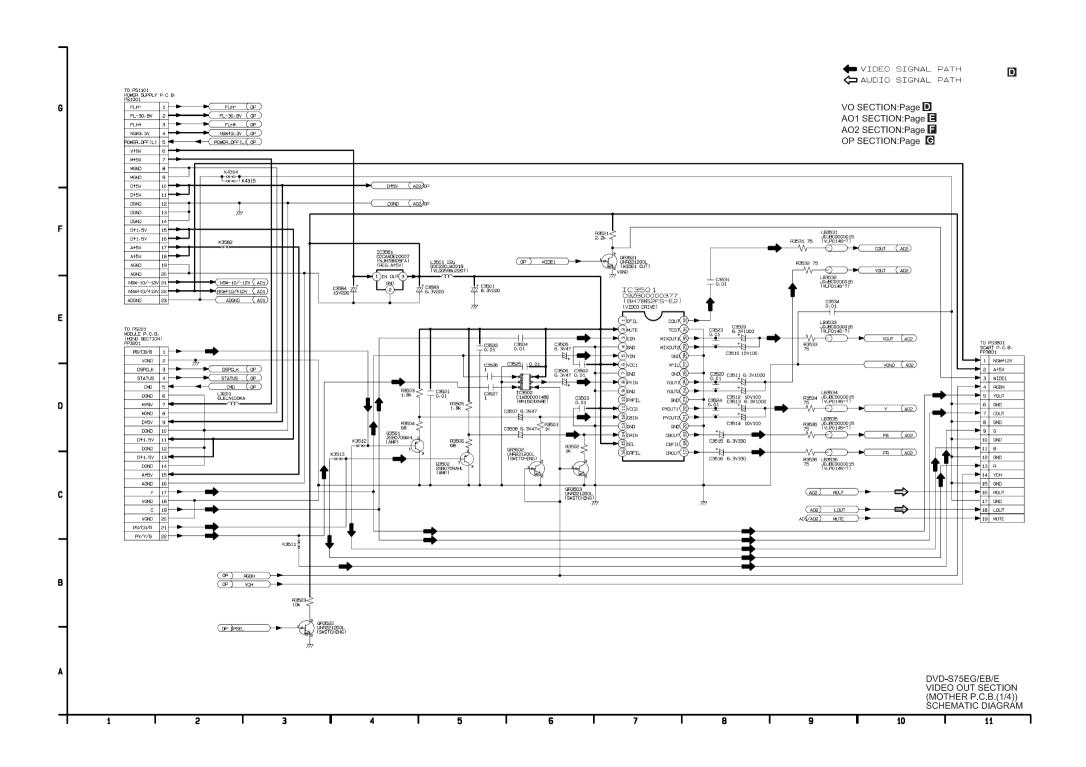


Ref No.										IC3	811									
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
PLAY	5.0	2.4	5.1	2.0	0	2.0	2.5	0	0	0	0	0	0	0	0	2.7	0	3.0	3.0	0
STOP	5.1	2.4	5.1	1.7	0	1.7	2.5	0	0	0	0	0	0	0	0	2.6	0	3.0	3.0	0
Ref No.										IC3	811									
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34						
PLAY	3.1	3.1	0	3.1	3.1	0	2.2	2.2	0	2.2	2.2	0	2.4	5.1						
STOP	3.1	3.1	0	3.1	3.1	0	1.8	1.8	0	1.8	1.8	0	2.4	5.1						
Ref No.			IC3	831						IC3	861									
MODE	1	2	3	4	5	6		1	2	3	4	5	6							
PLAY	0	2.6	5.1	2.6	0	2.6		5.1	5.0	5.1	0	0	0							
STOP	0	2.6	5.1	2.6	0	2.6		5.0	5.0	5.1	0	0	0							
Ref No.																				
MODE \																				
PLAY																				
STOP																				
Ref No.		Q3801				Q3851				Q3852				Q3861						
MODE	1	2	3		1	2	3		1	2	3		1	2	3					
PLAY	0	1.3	0.7		0	0	-5.5		0	0	-5.5		12.3	11.3	11.9					
STOP	0	1.0	0.4		0	0	0.7		0	0	0.7		12.3	11.2	11.8					
Ref No.																				
MODE																				
PLAY																				
STOP																				
Ref No.		QR3861				QR3862				QR3863										
MODE	1	2	3		1	2	3		1	2	3									
PLAY	11.9	0	0.1		11.3	11.3	0.1		0.1	0	5.1									
STOP	11.8	0	0.1		11.2	11.2	0.1		0.1	0	5.1									i









Transistor CP6306 D-2 F TC4221 B-4 F TL6204 F-6 Q5211 F-6 F CP6307 D-2 F TC5201 F-7 F TL6205 F-6 Q5221 C-1 C CP6308 E-2 F TC5202 F-7 F TL6206 F-6 Q5225 C-2 C CP6309 E-2 F TC5203 F-7 F TL6206 F-6 Integrated Circuit CP6310 D-2 F TC5203 F-7 F TL6208 F-6 IC3001 E-5 C CP6311 D-2 F TC5205 E-7 F TL6208 F-6 IC3061 C-3 F CP6312 D-2 F TC5205 E-7 F TP6201 F-3 IC4211 B-2 F CP6313 D-2 F TC5205 E-7 F TP6203 F-3 IC6201 E-2	C C C C F F F F F F F F F F F
Q5221 C-1 C CP6308 E-2 F TC5202 F-7 F TL6206 F-6 Q5225 C-2 C CP6309 E-2 F TC5203 F-7 F TL6207 F-6 Integrated Circuit CP6310 D-2 F TC5204 E-7 F TL6208 F-6 IC3001 E-5 C CP6311 D-2 F TC5205 E-7 F TP6201 F-3 IC3051 C-3 F CP6312 D-2 F TC5206 E-7 F TP6201 F-3 IC3061 C-4 F CP6313 D-2 F TC5206 E-7 F TP6202 F-3 IC4211 B-2 F CP6314 D-2 F TC5207 E-7 F TP6203 F-3 IC6201 E-2 F CP6315 D-2 F TC5208 E-7 F TP6204 F-3 IC620	000
Q5225 C-2 C CP6309 E-2 F TC5203 F-7 F TL6207 F-6 Integrated Circuit CP6310 D-2 F TC5204 E-7 F TL6208 F-6 IC3001 E-5 C CP6311 D-2 F TC5205 E-7 F TP6201 F-3 IC3051 C-3 F CP6312 D-2 F TC5206 E-7 F TP6201 F-3 IC3061 C-4 F CP6313 D-2 F TC5206 E-7 F TP6202 F-3 IC4211 B-2 F CP6314 D-2 F TC5208 E-7 F TP6204 F-3 IC6201 E-2 F CP6315 D-2 F TC5208 E-7 F TP6204 F-3 IC6251 C-2 C CP6316 D-2 F TC5209 E-7 F TP6206 F-2 IC63	00
Integrated Circuit	0
C3001 E-5	
IC3051	
IC3061	
IC4211 B-2 F CP6314 D-2 F TC5208 E-7 F TP6204 F-3 IC6201 E-2 F CP6315 D-2 F TC5209 E-7 F TP6205 F-3 IC6251 C-2 C CP6316 D-2 F TC5210 E-7 F TP6206 F-2 IC6301 D-7 C CP6317 D-2 F TC5211 E-7 F TP6207 F-2 IC6311 D-2 F CP6318 D-2 F TC5212 E-7 F TP6208 F-2 IC6312 D-2 F CP6319 E-2 F TC5213 E-7 F TP6251 B-6 IC6351 E-7 C CP6320 D-3 F TC5214 E-7 F TP6252 B-6	
IC6201 E-2 F CP6315 D-2 F TC5209 E-7 F TP6205 F-3 IC6251 C-2 C CP6316 D-2 F TC5210 E-7 F TP6206 F-2 IC6301 D-7 C CP6317 D-2 F TC5211 E-7 F TP6207 F-2 IC6311 D-2 F CP6318 D-2 F TC5212 E-7 F TP6208 F-2 IC6312 D-2 F CP6319 E-2 F TC5213 E-7 F TP6251 B-6 IC6351 E-7 C CP6320 D-3 F TC5214 E-7 F TP6252 B-6	
IC6251 C-2 C CP6316 D-2 F TC5210 E-7 F TP6206 F-2 IC6301 D-7 C CP6317 D-2 F TC5211 E-7 F TP6207 F-2 IC6311 D-2 F CP6318 D-2 F TC5212 E-7 F TP6208 F-2 IC6312 D-2 F CP6319 E-2 F TC5213 E-7 F TP6251 B-6 IC6351 E-7 C CP6320 D-3 F TC5214 E-7 F TP6252 B-6	F F F F F F
IC6301 D-7 C CP6317 D-2 F TC5211 E-7 F TP6207 F-2 IC6311 D-2 F CP6318 D-2 F TC5212 E-7 F TP6208 F-2 IC6312 D-2 F CP6319 E-2 F TC5213 E-7 F TP6251 B-6 IC6351 E-7 C CP6320 D-3 F TC5214 E-7 F TP6252 B-6	
IC6311 D-2 F CP6318 D-2 F TC5212 E-7 F TP6208 F-2 IC6312 D-2 F CP6319 E-2 F TC5213 E-7 F TP6251 B-6 IC6351 E-7 C CP6320 D-3 F TC5214 E-7 F TP6252 B-6	F F F F
IC6312 D-2 F CP6319 E-2 F TC5213 E-7 F TP6251 B-6 IC6351 E-7 C CP6320 D-3 F TC5214 E-7 F TP6252 B-6	FFFF
IC6351 E-7 C CP6320 D-3 F TC5214 E-7 F TP6252 B-6	F F
	F F
IC6561	F
Test Point	1 F
CP2011 E-6 C CP6323 E-2 F TC5217 E-7 F TP6255 A-6	
CP2012 E-3 F CP6324 D-3 F TC5218 E-7 F TP6256 A-6	F
CP2013 F-6 C CP6325 C-1 F TC5219 E-7 F TP6257 A-6	F
CP2014 F-6 C CP6326 D-1 F TC5220 E-7 F TP6258 A-6	F
CP2016	F
CP2018 E-4 C CP6328 C-2 F TC5222 E-7 F TP6561 C-6	С
CP2019 E-4 C CP6329 C-2 F TC5223 E-7 F TP6563 C-6	C
CP2020 E-4 C CP6330 C-2 F TC5224 E-7 F TP6564 B-2	F
CP2021 E-4 C CP6331 C-2 F TC5225 E-7 F TP6565 D-4	С
CP2023 E-3 F CP6332 C-2 F TC5226 E-7 F Connector	_
CP2031	C
CP2032	F
CP2033	F
CP2041 D-6 F CP6336 D-1 F TC5230 E-7 F PS6203 F-6	С
CP2042 D-2 C CP6337 C-1 F TC5231 E-7 F	
CP3002	
10, 2, 2, 1	
10. 00.00 0.00	
CP3013	
CP4201 D-3 C CP6343 D-2 F TC5237 D-7 F	
CP4201 D-3 C CP6343 D-2 F TC5237 D-7 F	
CP4203 E-7 C CP6351 E-2 F TC5239 D-7 F	
CP4204 E-6 C CP6352 E-2 F TC5240 D-7 F	
CP4205 E-6 C TC3201 A-5 F TC5241 D-7 F	
CP4211 D-4 C TC3202 A-6 F TC5242 F-6 F	
CP4212 B-6 C TC3203 A-6 F TC5243 E-6 F	
CP4213 D-4 C TC3204 A-6 F TC5244 E-6 F	
CP4214 D-4 C TC3205 A-6 F TC6201 E-2 F	
CP4215	l
CP5211	l
CP5221	l
CP5225	
CP5231 E-2 C TC4201 A-3 F TC6234 F-3 C	
CP5232 E-2 C TC4202 A-3 F TC6235 F-2 C	
CP6201 E-7 C TC4203 A-4 F TC6236 B-7 F	
CP6202 E-3 F TC4204 A-4 F TC6237 B-7 F	
CP6203 E-6 C TC4205 A-4 F TC6238 B-7 F	
CP6211 F-5 C TC4206 A-4 F TC6239 B-7 F	
CP6212 F-6 C TC4207 A-4 F TC6240 B-7 F	l
CP6213 F-5 C TC4208 A-4 F TC6241 B-7 F	l
CP6214 F-5 C TC4209 A-4 F TL3004 F-5 C	
CP6217 F-5 C TC4210 A-5 F TL3005 F-5 C	
CP6218 F-5 C TC4211 B-5 F TL3006 F-5 C	l
CP6219 F-5 C TC4212 B-4 F TL3007 F-5 C	l
CP6242 F-2 F TC4213 B-4 F TL3008 F-5 C	l
CP6261 E-6 C TC4214 B-4 F TL3009 F-5 C	l
CP6262 F-7 C TC4215 B-4 F TL3010 F-5 C	l
CP6263 F-7 C TC4216 B-4 F TL3011 F-5 C	l
CP6301 D-2 F TC4217 B-4 F TL3012 F-5 C	l
CP6302 D-2 F TC4218 B-4 F TL6201 F-5 C	
CP6303 D-2 F TC4219 B-3 F TL6202 F-6 C	
CP6305 D-2 F TC4220 B-3 F TL6203 F-6 C	

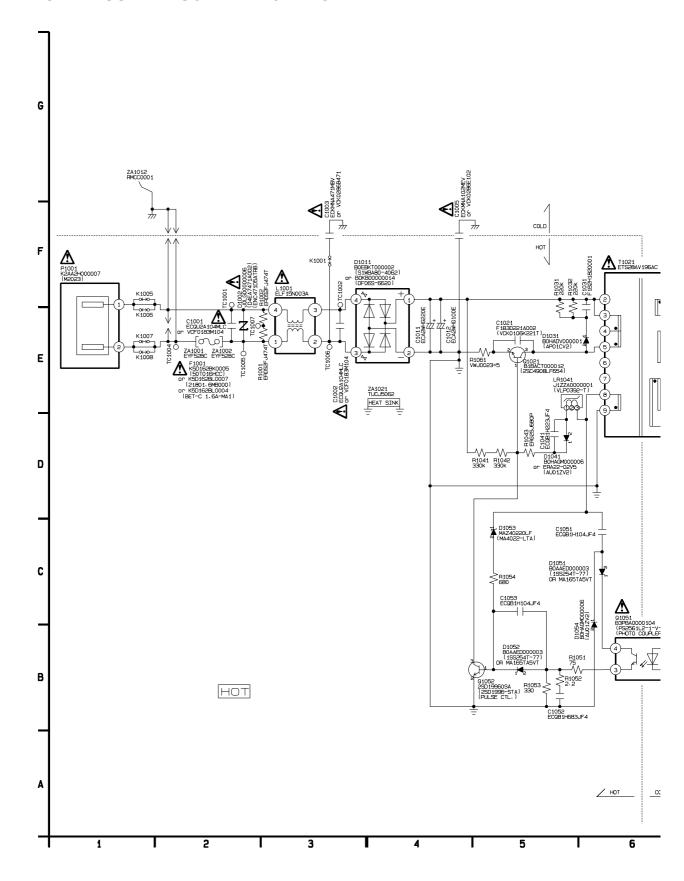
ADDRESS INFORMATION C.....COMPONENT SIDE F.....FOIL SIDE

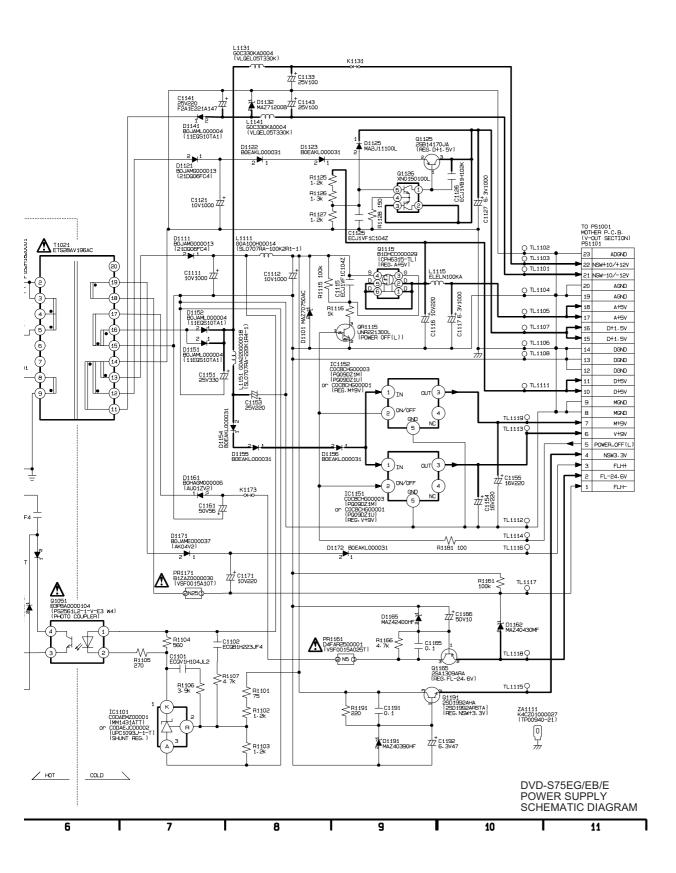
				MOTHER	P.C.B.				
Transistor		QR4901	C-5	TC6002	F-7	TC6026	D-7	TC6051	C-6
Q3501	E-1	QR4902	C-5	TC6003	E-7	TC6027	D-7	TC6052	B-6
Q3502	E-1	QR6052	B-7	TC6004	F-7	TC6028	D-7	TC6081	B-6
Q4302	A-2	QR6056	B-7	TC6005	F-7	TC6029	D-7	TC6082	B-6
Q4410	C-1	QR6057	B-7	TC6006	E-7	TC6030	D-7	TC6083	B-6
Q4413	B-1	Integrated Circuit		TC6007	E-7	TC6031	B-6	TL4301	A-2
Q4414	B-1	IC3501	D-2	TC6008	E-7	TC6032	B-7	TL4303	A-2
Q4415	B-1	IC3502	E-1	TC6009	E-7	TC6033	B-7	TL4470	A-2
Q4416	B-1	IC3581	F-1	TC6010	E-7	TC6034	B-7	TL4471	A-2
Q4417	B-1	IC4301	B-4	TC6011	E-7	TC6035	B-7	TL4901	C-2
Q4418	B-1	IC4302	A-3	TC6012	E-7	TC6036	B-7	TL4902	B-3
Q4419	C-1	IC4303	A-4	TC6013	E-7	TC6037	B-7	TL4903	A-5
Q4751	A-1	IC4304	A-4	TC6014	E-7	TC6038	B-7	TL4904	A-6
Q4901	B-5	IC4305	B-5	TC6015	E-7	TC6039	B-7	Connector	
Q4911	B-6	IC6001	B-6	TC6016	E-7	TC6040	B-7	FP3801	E-1
Q4921	C-5	IC6011	B-6	TC6017	E-7	TC6041	B-3	FP6001	B-3
Q6095	C-7	Test Point		TC6018	E-7	TC6042	B-2	JK4501	C-
Transistor-resistor		TC4301	A-5	TC6019	E-7	TC6043	B-2	JK4751	A-1
QR3502	D-2	TC4302	A-5	TC6020	E-7	TC6044	B-2	PP3201	B-5
QR3503	D-1	TC4303	A-5	TC6021	D-7	TC6045	B-2	PP4301	A-4
QR3521	F-2	TC4304	A-5	TC6022	D-7	TC6046	B-2	PS1001	F-2
QR3522	E-1	TC4305	A-5	TC6023	D-7	TC6047	B-3	PS6001	B-7
QR4301	A-2	TC4306	B-5	TC6024	D-7	TC6049	C-6		
QR4302	A-2	TC6001	F-7	TC6025	D-7	TC6050	C-6		

ADDRESS INFPRMATION

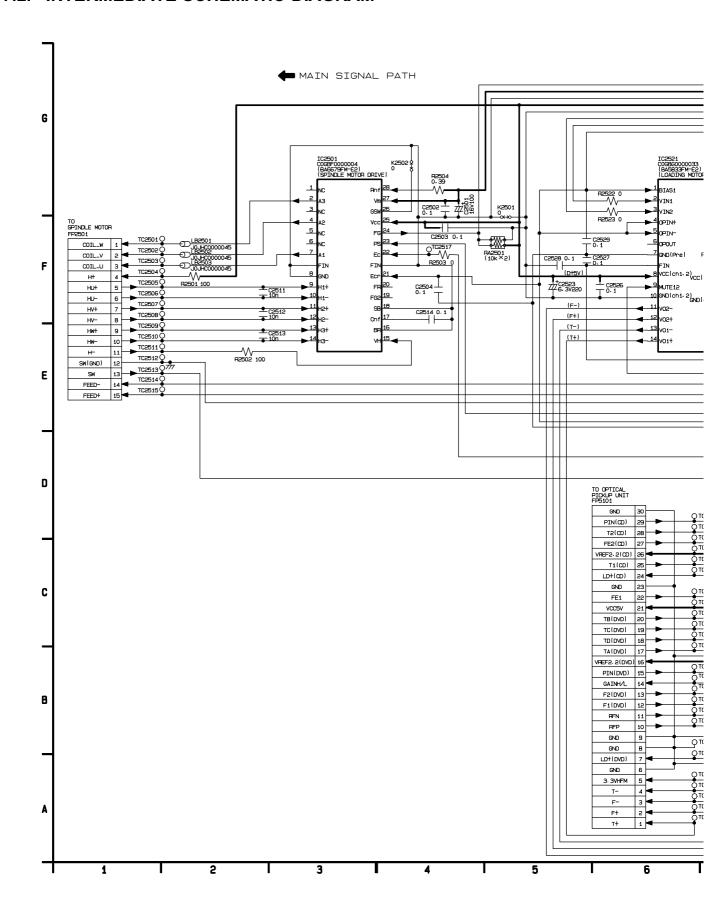
17 SCHEMATIC DIAGRAM

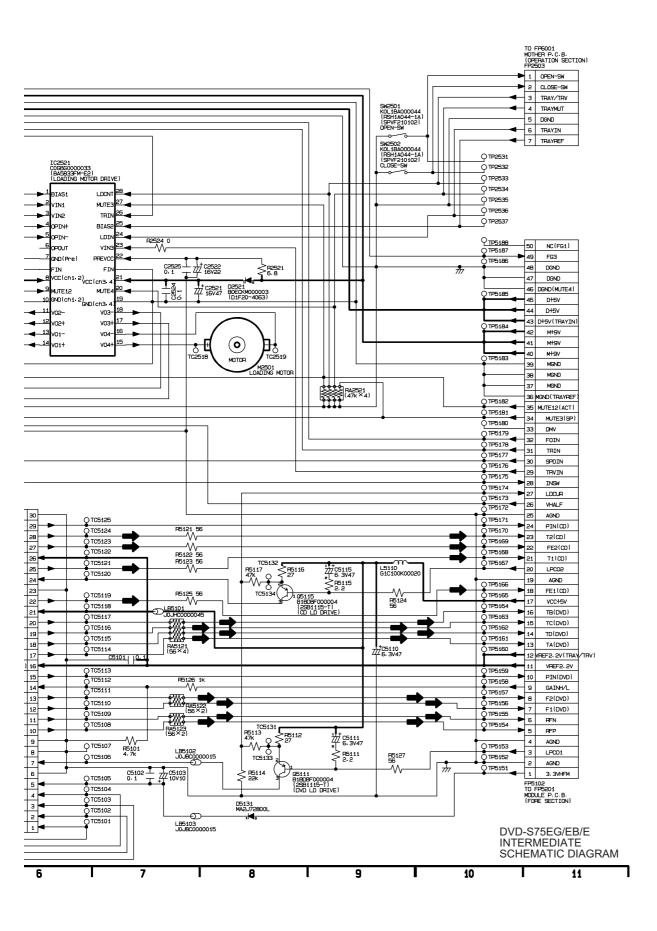
17.1. POWER SUPPLY SCHEMATIC DIAGRAM



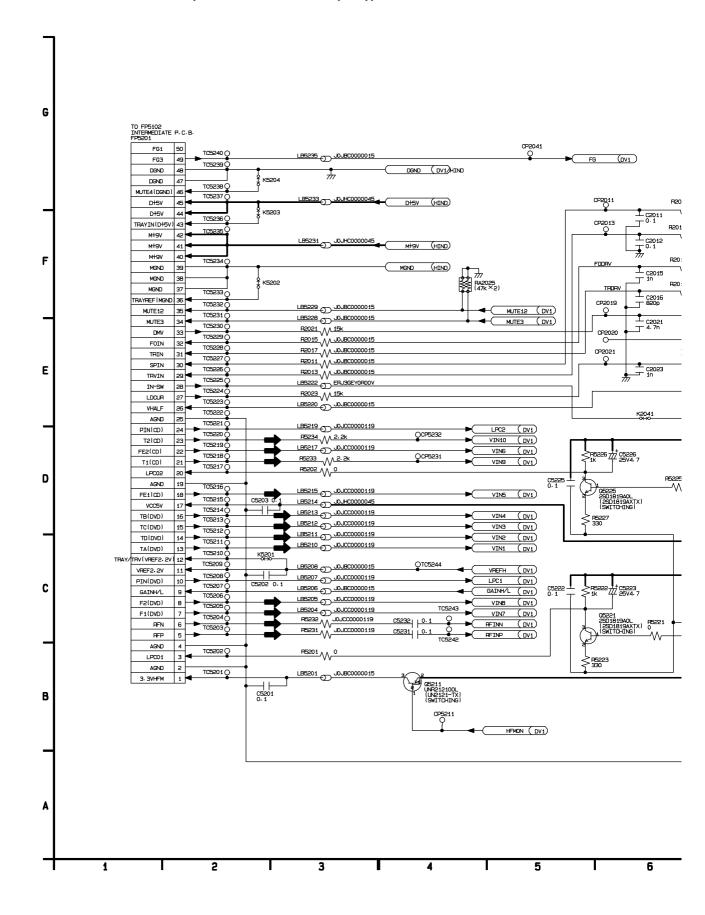


17.2. INTERMEDIATE SCHEMATIC DIAGRAM

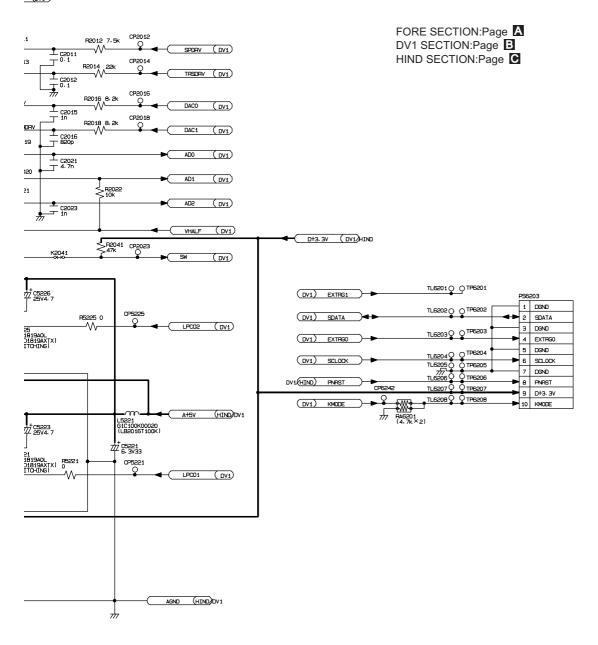




17.3. FORE SECTION (MODULE P.C.B. (1/3)) SCHEMATIC DIAGRAM



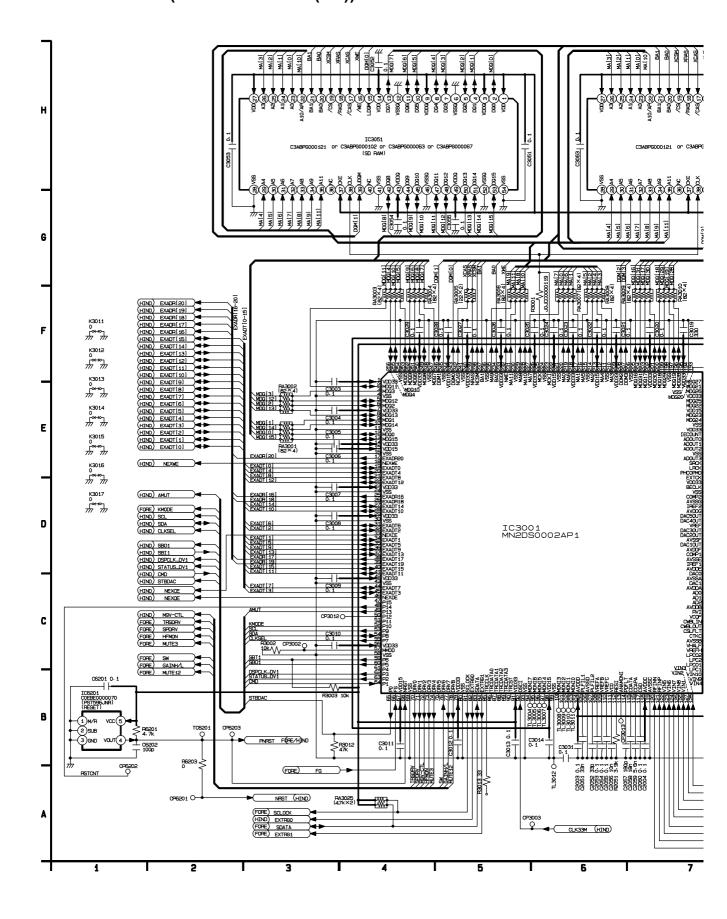
(DV1)

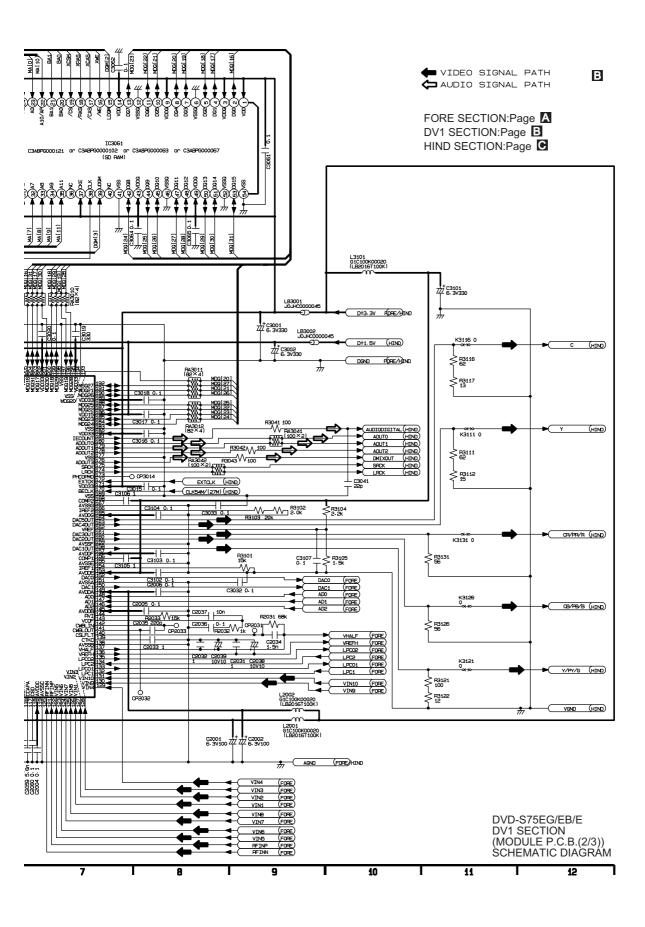


DVD-S75EG/EB/E
FORE SECTION
(MODULE P.C.B.(1/3))
SCHEMATIC DIAGRAM

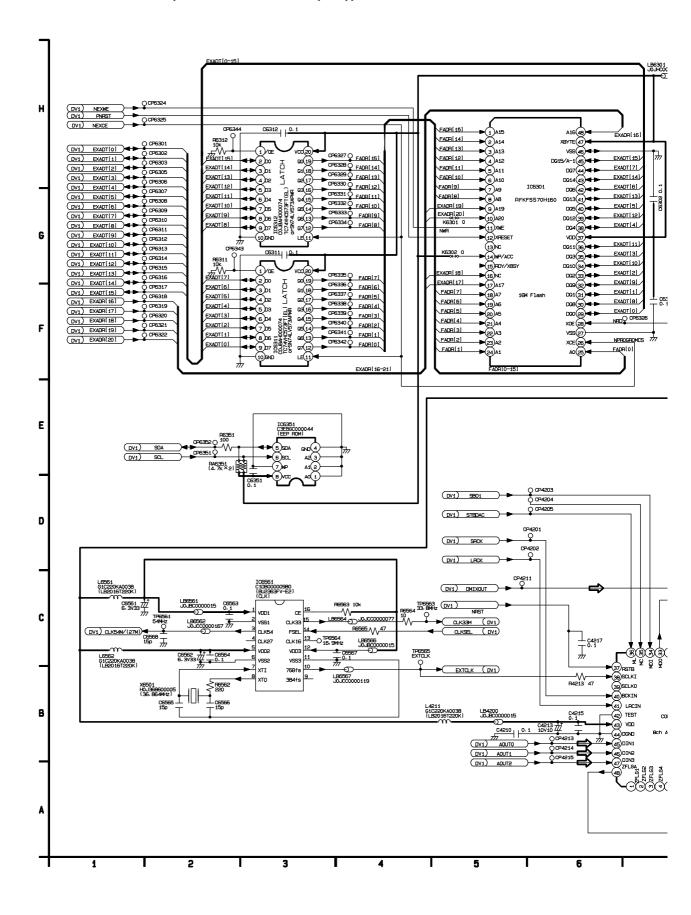
6 7 8 9 10 11

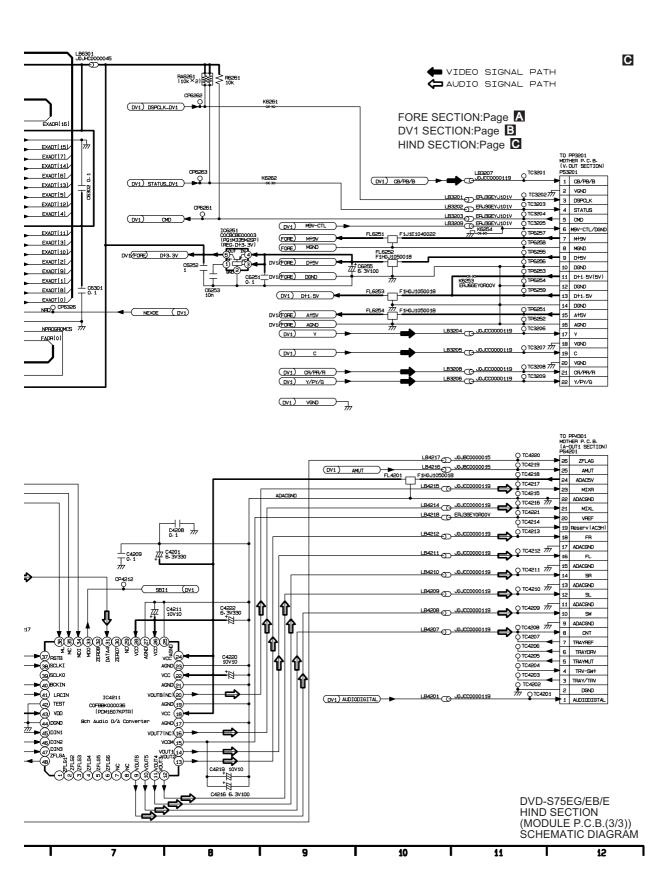
17.4. DV1 SECTION (MODULE P.C.B. (2/3)) SCHEMATIC DIAGRAM



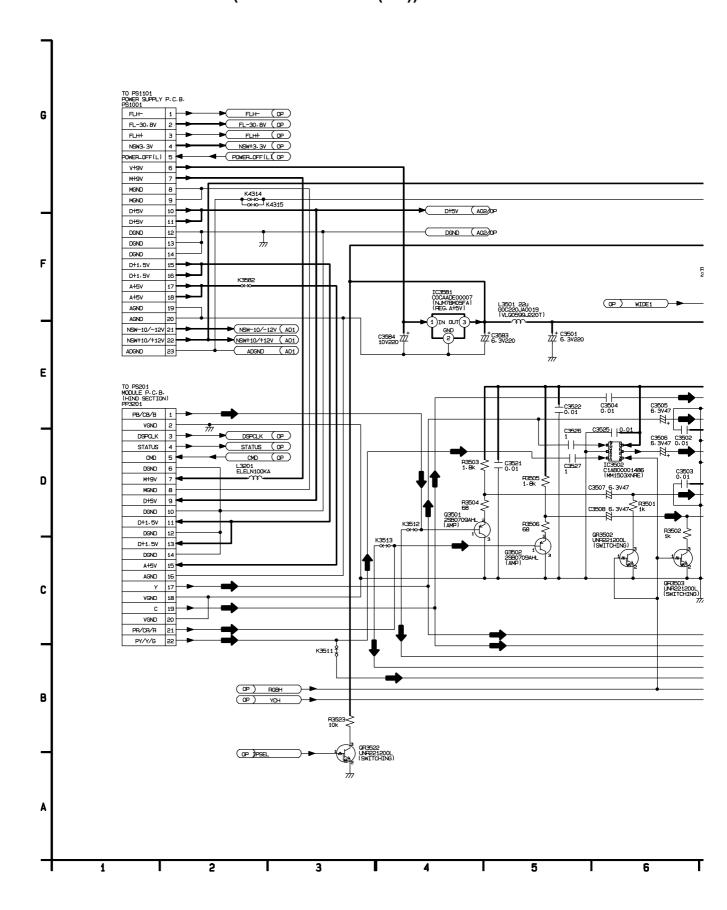


17.5. HIND SECTION (MODULE P.C.B. (3/3)) SCHEMATIC DIAGRAM





17.6. VIDEO OUT SECTION (MOTHER P.C.B. (1/4)) SCHEMATIC DIAGRAM

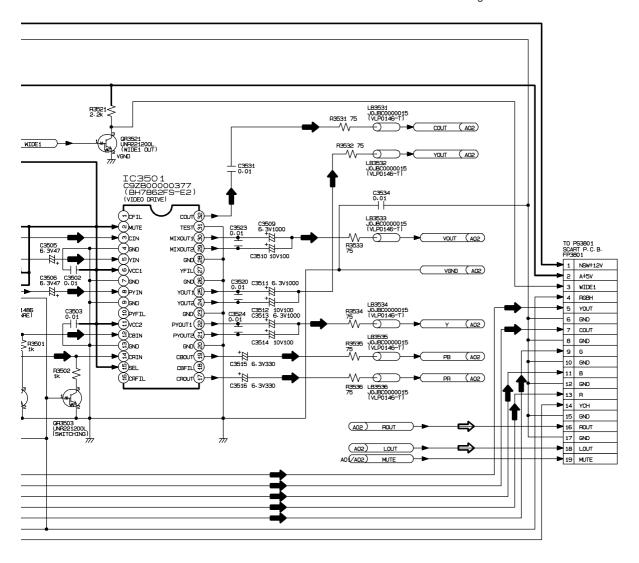


◆ VIDEO SIGNAL PATH

★ AUDIO SIGNAL PATH

D

VO SECTION:Page AO1 SECTION:Page AO2 SECTION:Page OP SECTION:Page



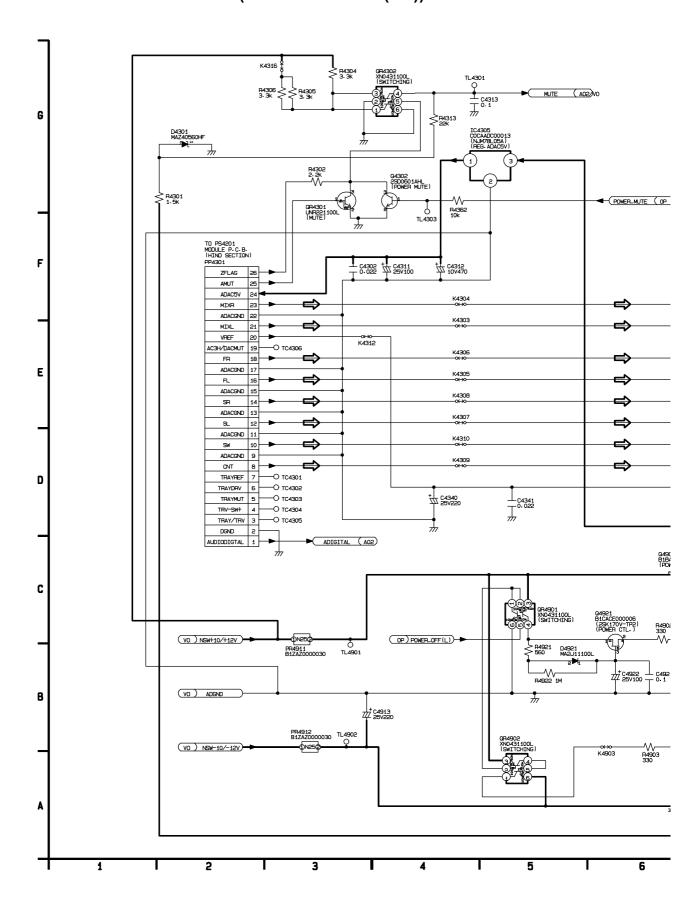
DVD-S75EG/EB/E VIDEO OUT SECTION (MOTHER P.C.B.(1/4)) SCHEMATIC DIAGRAM

11

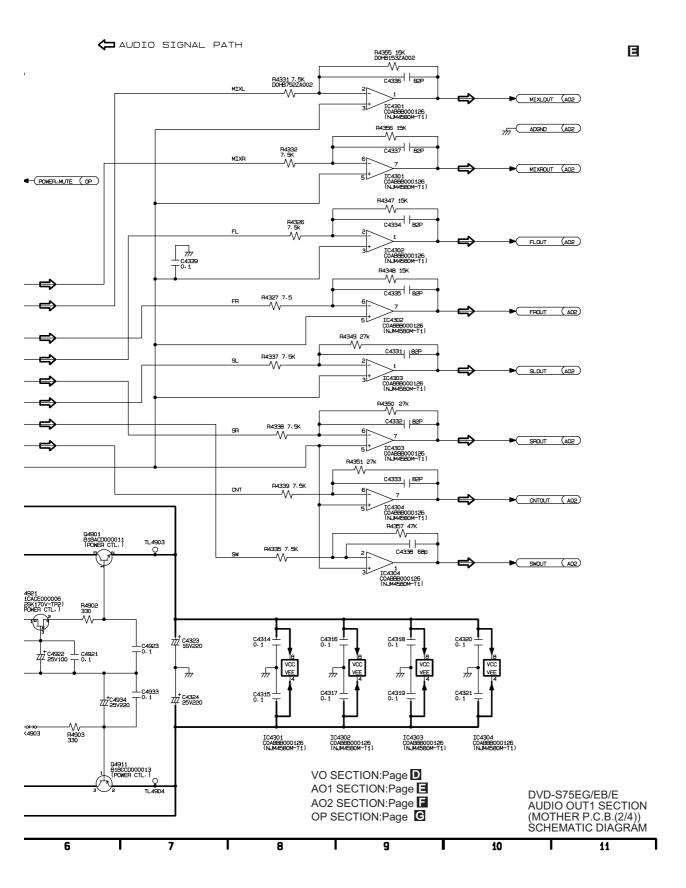
10

6

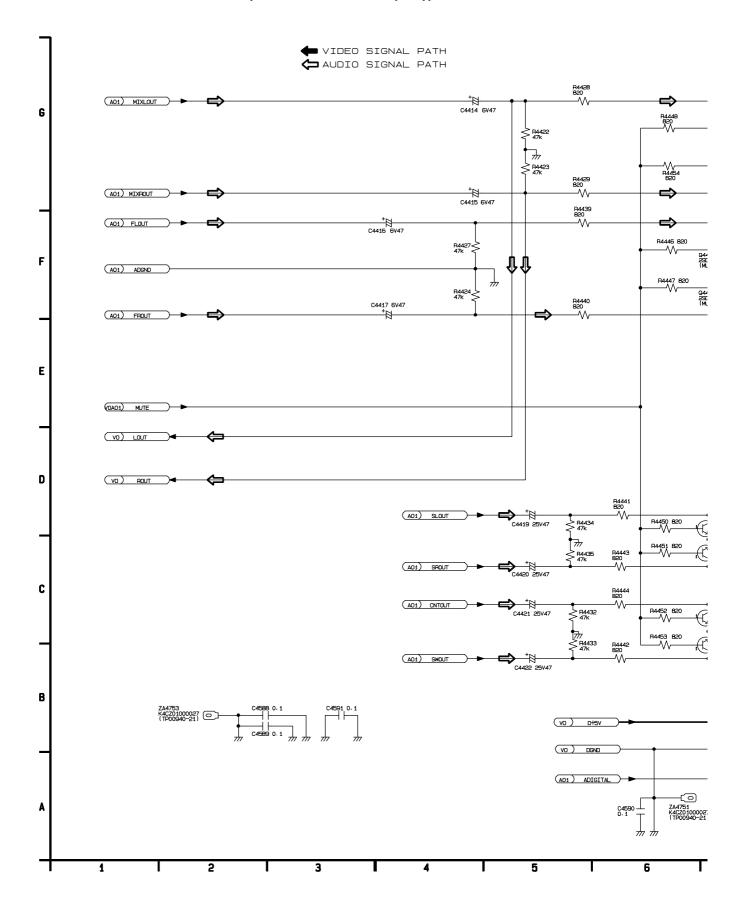
17.7. AUDIO OUT1 SECTION (MOTHER P.C.B. (2/4)) SCHEMATIC DIAGRAM

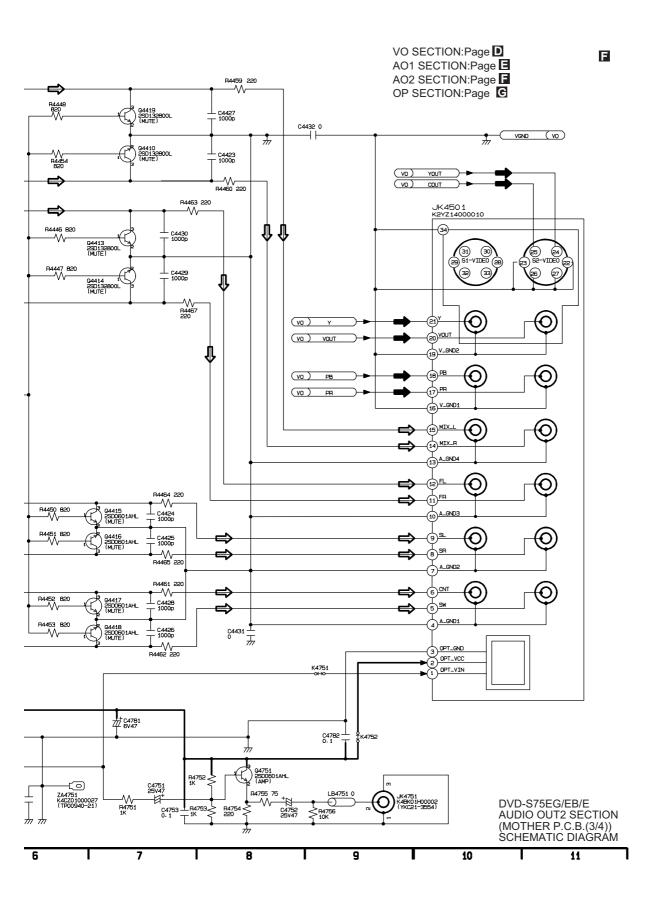


AM

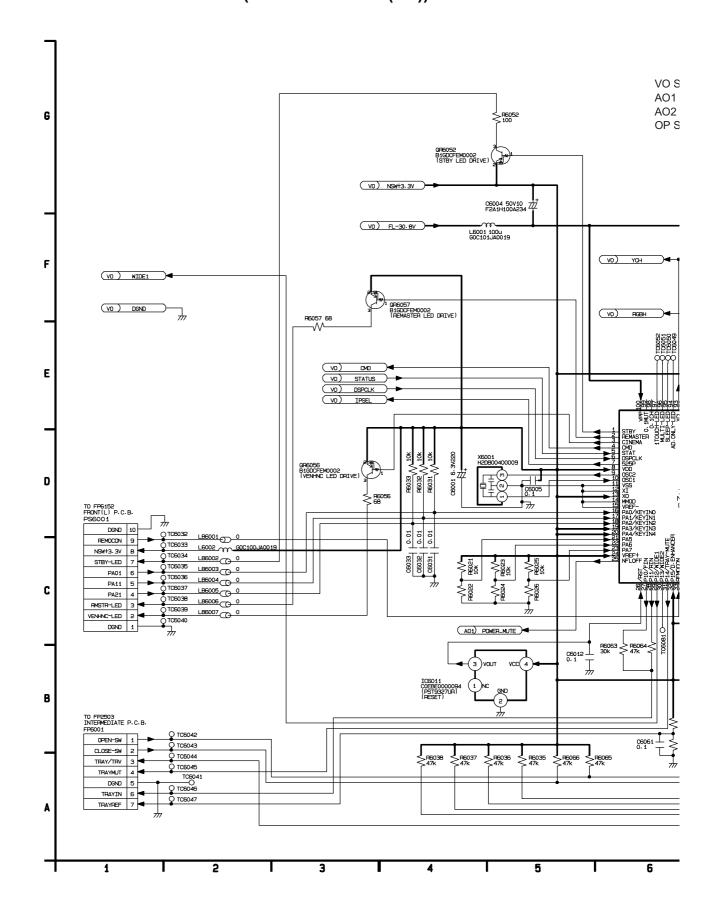


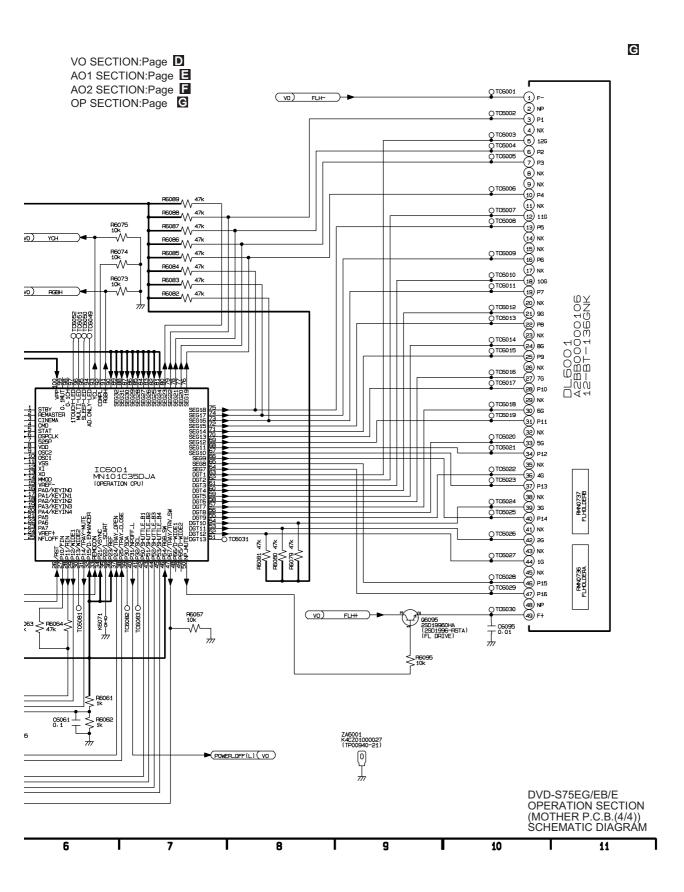
17.8. AUDIO OUT2 SECTION (MOTHER P.C.B. (3/4)) SCHEMATIC DIAGRAM



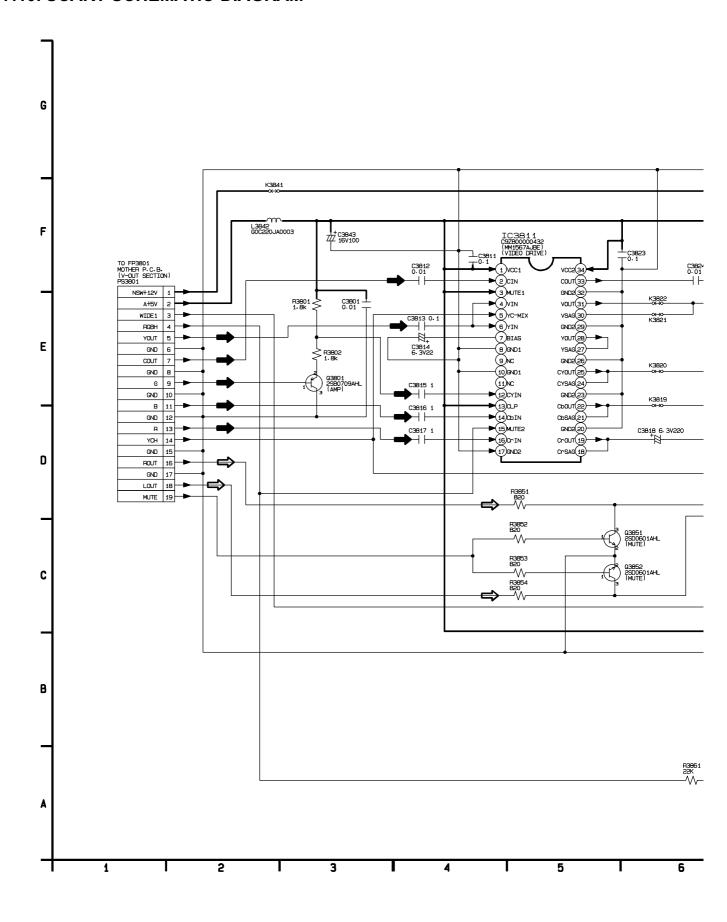


17.9. OPERATION SECTION (MOTHER P.C.B. (4/4)) SCHEMATIC DIAGRAM





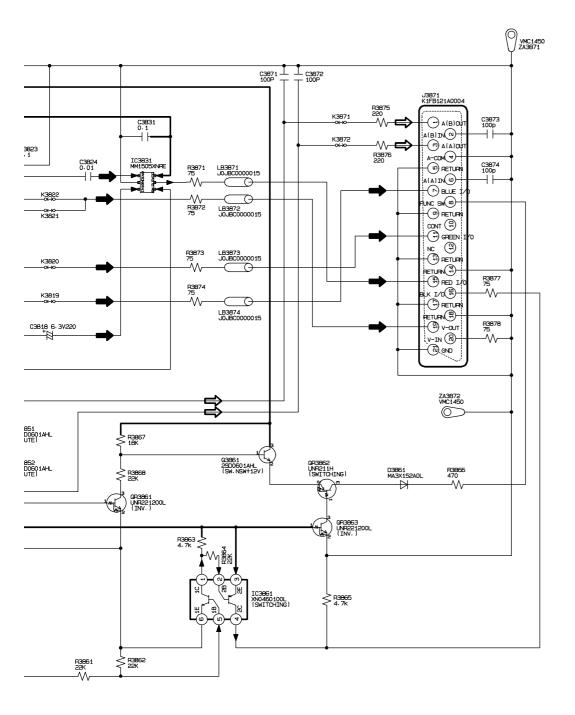
17.10. SCART SCHEMATIC DIAGRAM

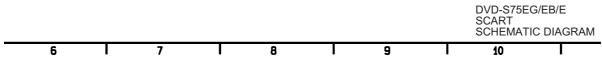




◆ VIDEO SIGNAL PATH

★ AUDIO SIGNAL PATH





17.11. FRONT (L) / FRONT (R) SCHEMATIC DIAGRAM

